[INCH POUND]
A-A-2953
October 24, 1995
SUPERSEDING
MIL-S-22783C
March 31, 1972
and Amendment-1
April 2, 1976

COMMERCIAL ITEM DESCRIPTION

SEALING MACHINES, ELECTRICAL IMPULSE (JAW TYPE)

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

1. SCOPE

1.1 Scope. This commercial item description covers sealing machines with an electrical impulse heating element in one jaw, intended for use in impulse sealing of thermoplastic materials.

2. CLASSIFICATION

2.1 Classification. The sealing machines shall be of the following type and size, as specified (see 7.3).

Type I - Portable sealing machine, mechanical operation, separate control unit, without cooling unit

Size 6 - 6 inch (152.4 mm) jaw length

Type III - Bench mounting sealing machine, hand or foot operation, integral control unit, with cooling unit, 1/8 inch (3.1 mm) minimum seal width

Size 14 - 14 inch (355.6 mm) jaw length

3. SALIENT CHARACTERISTICS

3.1 Standard Commercial Product. The sealing machines covered by this commercial item description shall be the manufacturer's standard commercial product except for any changes necessary for compliance with this commercial item description. Materials not specified shall be the quality used in commercial practice.

Beneficial comments, recommendations, additions, deletions, clarifications, etc. and any data which may improve this document should be sent to: General Services Administration, Engineering Group (7FXEE), 819 Taylor St., Fort Worth, TX 76102

FSC 3540

3.1.1 UL 499 Conformance. Acceptable evidence of meeting the requirements of UL 499 shall be a UL label or listing mark, or a certified test report from an independent testing laboratory acceptable to the Government, indicating the electrical materials and components offered have been tested and conform to UL 499.

3.1.2 NFPA Conformance. Acceptable evidence of meeting the requirements of the National Fire Protection Association (NFPA) National Electrical Code Standard No. 70 shall be the manufacturer's certified statement that the sealing machine conforms to the applicable NFPA requirements.

3.2 Construction. The sealing machines shall be of the jaw type, equipped with an electric impulse heating element, providing a heat flux density of not less than 250 W/in^2 (0.1613 W/m^2) for the heating element and uniformly heating the entire sealing area. The design of the machine shall allow for lubrication of friction points, easy replacement of parts, free operation of jaws at all temperatures, and protection of the operator from contact with parts at elevated temperatures. Both jaws shall have replaceable covers of polytetrafluorethylene glass cloth, or equivalent, to prevent adhesion of the work to the jaws.

3.2.1 Sealing cycle. During operation of the sealing cycle, both the heating and cooling timers shall not be interruptable or the times changeable after the operating switch has been activated, except by activation of the master switch.

3.2.2 Master switch. A readily accessible master switch shall be provided to energize the control unit and provide emergency termination of the sealing cycle.

3.2.3 Indicator lamps. A red indicator lamp shall indicate that the controls are energized and the sealing machine is ready for operation. An amber indicator lamp shall indicate a sealing cycle is in progress.

3.2.4 Timers. The sealing machines shall have timers to control the heating and cooling periods. The heating timer shall have a variable range from 0 to 2 seconds. The cooling timer shall have a variable range from 0 to 6 seconds. Both timers shall have scale calibration intervals of 1/10 to 1/2 second.

3.2.5 Fuses. Electrical heating elements shall be protected by a separate circuit switch with a fuse or manual reset circuit breaker.

3.2.6 Spring tension. The electrical impulse heating elements shall be firmly and securely held in place by springs under tension.

3.2.7 Jaws. At least one of the jaws shall have a resilient silicone, or equivalent, rubber cushion to compensate for variation in thickness and wrinkled lap joints.

3.2.8 Electrical cord. Each sealing machine shall be provided with a 6 foot (1.83 m) minimum length electrical cord with plug.

3.3 Type I. Each sealing machine shall consist of a sealing unit with a separate control unit. The sealing machine and control unit shall be interconnected by means of a 10 foot (3.05 m) minimum length electric cable. The control unit shall contain a heating timer, main switch, indicator lamps, and electrical components and connections essential to the performance of the sealer. The sealer operation shall be activated by pressing a switch mounted on the sealer convenient to finger or thumb touch. When activated, the switch shall close an electrical circuit to start the sealing cycle and light the amber indicator light when predetermined pressure has been applied. Predetermined jaw pressure shall be maintained to provide a distortion free seal.

3.3.1 Handle. The heat sealing machine shall have the sealing unit handle and operating switch insulated so when the sealer is continually operated for one hour, the temperature of the handle and operating switch shall not exceed 100°F (37.8°C).

3.3.2 Weight. Excluding the electric cable and separate control unit, the weight of the sealing machine shall not exceed 3 pounds (1.359 kg).

3.4 Type III. The sealing machine shall be capable of being bench mounted with application of sealing pressure by hand or by foot pedal. The sealing machine shall consist of an integral control unit including heating and cooling timers, main switch, and electrical components essential to the operation of the sealer. The heating element shall have current overload protection. The sealing machine shall be capable of passing a continuous web of transparent material no wider than 6 inches (152.4 mm) less than the maximum sealing length through the machine. When a predetermined jaw pressure is attained, the sealing cycle shall be initiated and shall continue until the operator releases the pressure. An amber indicator lamp shall indicate the duration of the sealing cycle. Jaw pressure shall be provided by tension springs or other means. At the end of the sealing cycle, the amber light shall go out indicating to the operator that the applied pressure may be released. All the controls shall automatically reset at the end of each sealing operation.

3.4.1 Integral control unit. The control unit shall be located on the sealing unit and positioned conveniently for the operator. The control panel shall consist of a master switch, indicator lamps, heating and cooling timers, and all parts and accessories necessary for control of the sealing operation.

3.5 Performance. Sealing machines shall be capable of sealing a minimum of 24 mils (609.6 µm) of low density polyethylene layered material within two seconds. Sealing machines shall be capable of forming seals in the presence of wrinkles, lap joints, overlaying lap joints, and contamination of the heat sealable surface, without exhibiting separation or delamination of the seals.

3.6 Workmanship. The sealing machines shall have no defects that affect appearance, function, or serviceability.

3.7 Measurement system. The values stated in inch-pound units are to be regarded as the standard. The metric values stated in parentheses are for information purposes only.

3.8 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, providing they fall within the tolerances specified and all other requirements of this document 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.

3.9 Commercial item. The use of the term "commercial item" in this document does not imply that any item or items offered are not required to conform with all requirements specified herein.

4. REGULATORY REQUIREMENTS.

4.1 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. QUALITY ASSURANCE PROVISIONS

5.1 Contractor Certification. The contractor shall certify and maintain substantiating evidence that the product offered meets the salient characteristics of this Commercial Item Description, and that the product conforms to the producer's own drawings, specifications, standards, and quality assurance practices, and is the same product offered for sale in the commercial marketplace. 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.

6. PACKAGING

6.1 Packaging. Preservation, packing, and marking shall be as specified in the contract or order.

7. NOTES

7.2 Referenced Documents. The documents referenced in this commercial item description shall be the issues in effect on the date of issuance of the invitation for bids or request for proposals unless otherwise specified. These documents form a part of this commercial item description to the extent specified. In the event of a conflict between this commercial item description and a document referenced herein, this commercial item description shall take precedence.

UL Standards. Application for copies of UL standards should be addressed to Underwriters Laboratories Inc., 333 Pfingsten Road, Northbrook, IL 60062.

NFPA Standards. Application for copies of NFPA standards should be addressed to National Fire Protection Association, One Batterymarch Park, P.O. Box 9101, Quincy, MA 02269-9101.

7.3 Ordering data. Purchasers should select the preferred options permitted herein and include the following information in procurement documents (if applicable).

a. Title, number and date of this commercial item description.
b. Type and size (see 2.1).
c. The preservation, packing, and marking desired.

7.4 National Stock Numbers (NSNs): The following is a list of NSNs assigned which correspond to this CID. The list may not be indicative of all possible NSNs associated with the CID.

NSN	Type	Size
3540-00-293-0377	I	6 inch (152.4 cm)
3540-00-299-9811	III	14 inch (355.6 cm)

7.5 Suppression data. Type I, Type II, Type III, and Type IV sealing machines of MIL-S-22783C were deleted for this commercial item description except Type I, size 6, and Type III, size 14.

MILITARY INTERESTS:

NONE: DoD has no registered interest in revisions to this Commercial Item Description until further notice.

PREPARING ACTIVITY:
GSA-FSS