

[INCH-POUND]
A-A-58061
July 29, 1996

COMMERCIAL ITEM DESCRIPTION

SOLDERING - DESOLDERING STATION

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

1. SCOPE.

1.1 General. This Commercial Item Description (CID), describes a repair station for circuit boards. The equipment shall be of one type and style, used to repair a wide variety of electronic boards and components and is suited for depot or on-site repair operations. This CID is meant as a minimum requirement for the repair station in which only those manufacturers that meet or surpass the following requirements are qualified per this CID.

2. SALIENT CHARACTERISTICS.

2.1 Design. The soldering-desoldering station shall be a compact, bench mounted, capable of all types of component installation/removal, circuit board preparation and repair into one self-contained workstation. The station shall be new (not a prototype) and one of the manufacturer's current models capable of the requirements herein. The station shall include all components, parts, and features necessary to meet the performance requirements specified herein. All parts subject to wear, breakage, or distortion shall be accessible for adjustment, replacement and repair.

2.2 Console and power supply. Unless otherwise specified (see 6.2), each soldering-desoldering station shall have a console and power supply with zero power switching for desoldering static/voltage sensitive mos-type devices. The console and power supply shall be housed in a container no larger than 14 inches long x 7 inches high x 10 inches wide, and shall not exceed 30

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AMSC N/A

FSC 3439

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pounds in weight. The power source shall contain multiple channels on the front panel and shall be capable of supplying and controlling multiple sensor-driven hand pieces up to 75 watts with no more than 24 VAC to each handpiece channel. The power unit has a total power consumption of 25 watts. The console shall have a temperature display that indicates temperatures in Fahrenheit and Centigrade scale with a resolution of 1 degree. The power source shall be capable of setting back temperatures of inactive hand pieces automatically or on user demand to 350 degrees F (180 degrees C). Temperature outputs shall be shut down after 90 minutes minimum of inactivity. A multiple LED Digital Display temperature control range from 100 degrees F (38 degrees C) to 900 degrees F (482 degrees C) shall be capable of recalibrating its temperature measurement circuitry for all channels while in operation and shall monitor both of status and error codes. The power source shall provide a quick rise vacuum for the desoldering handpiece and shall be capable of bringing vacuum to 10 inches of Hg in 150 mS or less when measured at the end of the extractor tip. Vacuum level shall be fixed. Supply user adjustable air flow for the hot air handpiece. Use quick connect friction fittings for all handpieces using air flow or vacuum. The power source shall be provided with power cords and wrist strap foot pedals as standard equipment to activate accessories.

2.3 Desoldering Handpiece. One each, desoldering handpiece with visifilter filtration shall be provided. The potential between ground and the tip of the extractor shall be less than or equal to 2mV AC RMS and the resistance, shall be equal to 2mV AC RMS and the resistance, tip of the desoldering handpiece to ground, shall be less than or equal to 2.0 ohms as measured from the tip of hot soldering irons and from the carrier of any soldering or cleaning equipment.

2.4 Conductive tweezer. One each, conductive tweezer to provide localized heating for surface mount removal and heating for multi layer boards.

2.5 Thermal wire stripper. One each, thermal wire stripper for removal of insulation from conductors.

2.6 Resistance tweezer. One each, resistance tweezer for localized soldering or desoldering.

2.7 Thermal parting/lap reflow soldering unit. One each, thermal parting/lap reflow soldering unit for installation of surface mounted devices and thermal removal of conformal coating.

2.8 Machining system. One each, miniature machining system for milling, drilling, grinding, and abrasive cleaning of components. The variable speed shall be developed over a range of 2500 to 10,000 RPM and the speed shall be capable of being maintained within 10% over a load range of 2 in-oz. The stall torque shall be a minimum of 2.5 in-oz. The handpiece shall be grounded dynamically and maintain a resistance to ground not greater than 2 ohms when the unit is in operation. Braking of the hand piece shall permit drilling and machining of circuit card assemblies and shall be capable of stopping within 75 mS. The handpiece shall accommodate either a 0.09 inch collet system or a 5/32 inch chuck and be provided with an assortment of 3/32 inch shank diameter ball mills, drill bits, mandrels, bristle brushes, abrasive wheels and bullet

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abrasives. Stands for the mills, drill bits, mandrels, brushes and bits shall be provided for easy access.

2.9 Holder. One each, cubby holder shall be provided with the cleaning unit assembly for soldering and desoldering irons.

2.10 Kit. One each, circuit kit repair and replacement system for use on pads, traces, and other conductors on printed circuit assemblies unless otherwise specified (see 6.2).

2.11 Soldering iron. One each, desoldering iron with pencil grip and a short tip to grip distance. A 3/16 inch shank quick change soldering tip shall be supplied with the soldering iron.

2.12 Electric power cord. A three conductor power cord not less than 7 feet or maximum of 8 feet in length shall be provided. The power cord may be permanently attached to the station or may be connected by a receptacle and plug.

2.13 Electrical system. The electrical system shall conform to the requirements of NFPA 79. The station shall be designed to operate from a 97-127 volts AC, 50/60 Hz, single phase power source.

2.14 Nameplate. A nameplate shall be securely attached to each machine. Unless otherwise specified (see 6.2), the nameplate shall contain the information listed below.

- a. Nomenclature
- b. Manufacturer's name
- c. Machine model designator
- d. Power input (volts, total amps, phase, frequency, hertz)
- e. Short circuit/over current rating
- f. Contract number
- g. National stock number (NSN)
- h. Date of manufacture

3. REGULATORY REQUIREMENTS.

3.1 The offeror/contractor is encouraged to use recovered materials to the maximum extent practical, in accordance with paragraph 23.403 of the Federal Acquisition Regulation (FAR

4. QUALITY ASSURANCE PROVISIONS.

4.1 Product Conformance. The soldering- desoldering station 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

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sale in the commercial market. The government reserves the right to require proof of such conformance.

4.2 Descriptive literature. The offeror shall submit descriptive literature to evaluate the offeror's product. Descriptive literature shall consist of the following:

- a. Proof of market acceptability (MA). The item offered must have been sold to the Government or commercial market.
- b. Literature that describes the work station and certificates of performance (brochures and specification sheets) showing that the unit meets the requirements of the CID.
- c. Complete set of drawings that includes drawings for the components.
- d. Copies of purchase orders, shipping documents concerning the same/similar item that has been sold to the Department of Defense.
- e. Commercial quality program.
- f. Copy of warranty which will be provided.

4.3 Bid samples. If the literature submitted is determined to be inadequate for approval, a bid sample shall be submitted to the Government for testing. A 14 to 30 day evaluation will be conducted at SA-ALC/TIELQ, 508 Shop Lane, Kelly AFB, San Antonio, Texas 7824106432. The contractor shall furnish continuous maintenance support (parts and labor) during the evaluation. Bid sample shall consist of examination and testing of the unit in detail to confirm adherence with the specified requirements of the CID.

5. PACKAGING.

5.1 Preservation, packaging, packing, labeling, and marking. The preservation, packaging, packing, labeling, and marking shall be as specified in the contract or order.

6. NOTES.

6.1 Addresses for obtaining copies of referenced documents.

6.1.1 Industry/commercial documents.

NFPA 79-87

Electrical Standard for Industrial Machinery

(Application for copies should be addressed to the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269-9101.)

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6.2 Ordering data.

- a. Title, number and date of this commercial item description.
- b. Standard equipment, if different (see 2.2)
- c. Specify and fully describe optional equipment, if required (see 2.10)
- d. Electrical requirements if different, (see 2.13).
- e. Nameplate, if different (see 2.14).
- f. Packaging, if different (see 5.1).

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

3439-01-269-5494
 3439-01-362-7399
 3439-01-413-8955

6.4 Subject term (keyword) listing.

Soldering and Desoldering
 Work Station
 Handpiece
 Tweezer
 Iron
 Console

MILITARY INTERESTS:

Custodian:
 Air Force - 99

Review Activity:
 Air Force - 84

CIVIL AGENCY
COORDINATING ACTIVITIES:

GSA-FSS

Preparing Activity:
 Air Force - 82

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