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INCH-POUND

A-A-55137
17 June 1993
SUPERSEDING
MIL-S-80034C
25 January 1985

SAW, JIG, WOODWORKING

The General Services Administration has authorized the use of this commercial item description in preference to MIL-S-80034C.

1. ABSTRACT

1.1 Abstract. This commercial item description (CID) covers jig saws suitable for straight and curved sawing of wood, plastic, sheet metal, and other similar materials. The jig saw shall be new (not a prototype) and one of the manufacturer's current production models capable of operating in accordance with the requirements specified herein.

1.2 **Classification.** This commercial item description covers jig saws of the following sizes. The size to be furnished shall be as specified (see 7.1).

Size: 24-inch throat
Size: 36-inch throat

2. SALIENT CHARACTERISTICS

2.1 Frame. The frame shall be of such mass and rigidity to support the reciprocating saw blade, blade drive device, and the workpiece support table with hand-fed workpiece.

2.1.1 Base. The 24-inch saw shall be provided with floor or bench mounting as specified (see 7.1). The 36-inch saw shall have a base integral with the frame for floor mounting.

Beneficial comments, recommendations, deletions, clarifications, etc., and any data which may be of use in improving this document should be addressed to: Defense General Supply Center (DGSC), ATTN: DGSC-SSM, Richmond, VA 23297-5647.

AMSC N/A FSC 3220

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2.1.2 Table. The table workpiece support surface shall be finished and flat to within ± 0.005 inch per foot. When specified (see 7.1), the table shall be drilled for mounting optional jigs, guides, or other fixtures. The table shall be provided with tilting characteristics as required by table I. Means shall be incorporated to securely retain the table in any adjusted position. A dial or scale shall be provided to indicate the degree of adjusted table positions within an accuracy of ± one degree.

2.1.3 Blade drive mechanism. The 24-inch saw shall have a blade drive mechanism that provides either an infinite or four step blade speed which conforms to the blade speed range specified in table I. The 36-inch saw shall be provided with a single blade speed of not less than 1200 strokes per minute (see table I). The 36-inch saw blade drive mechanism shall be provided with a brake system which stops the drive mechanism within 10 seconds. The blade stroke lengths shall conform to the requirements of table I. The blade mechanism shall be provided with either a blade chuck or vise to securely retain the lower end of the saw blade to the blade drive mechanism. The blade drive mechanism shall be provided with an upper blade control assembly to maintain blade tension and shall allow reciprocal strokes and blade speeds compatible to the blade drive mechanism. The blade drive mechanism shall be provided with a blade guide system. The blade guide system shall be capable of maintaining alignment and back support to the blade. The guides shall be of the self-centering type, adjustable, and shall be composed of carbide or of a material having equal wear qualities.

2.1.4 Workpiece hold-down clamps The saw shall be provided with a workpiece hold-down clamping system which shall be capable of preventing the workpiece from rising on the upstroke of the blade. The workpiece hold-down clamping system shall be adjustable within the workpiece thickness range specified in table I.

2.1.5 Air pump. The saw shall be provided with an air pump system to supply air flow directly to the worktable area. The air quantity and pressure shall be capable of removing sawdust from the sawing line.

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2.1.6 Performance. The saw shall be capable of sawing hardwood of a thickness equal to the workpiece thickness specified in table I. The saw shall be capable of sawing a straight line and a circular pattern with a deviation not greater than ± 1/32 inch on the cut surface. The saw shall be capable of sawing inside corners and making vertical and angular cuts with a deviation not greater than ± one angular degree of the table surface and table-tilt adjustment.

Table I. Size and capacities

Characteristics	Size	Size
Throat, inches	24	36
Table dimensions, inches	14 x 14	34 x 34
Workpiece thickness, inches	1-3/4	2
Blade length, inches	5	10
Blade stroke, inches	1	2-1/2
Blade stroke per minute	825-1600	1200
Blade step-speed (4)	600, 900, 1250 1700	
Motor, horsepower (Hp)	1/3	1
Speed, RPM	1725	1200
Table tilt, degree		
Right	45	30
Left	12	30
Table height, inches (floor to workpiece support surface)	4 0 ± 3	4 0 ± 3

NOTE : Machine sizes and capacities shall be not less than the stated requirements of the size ordered or not greater than the requirements of the next largest size shown in this table. When a saw of the largest size and "capacity is ordered, the size and capacity of the jig saw offered shall not exceed the stated requirements by more than 10 percent.

2.2 Electrical system. Unless otherwise specified (see 7.1), the electrical system shall conform to NFPA 79. Each saw shall draw all of its electrical power from a single 230/460 volt, 3 phase, 60 Hertz (Hz), and dual 230/460-voltage circuit. Conversion from one voltage to the other shall be accomplished by reconnecting the existing components. The saw shall be initially wired as specified (see 7.1).

2.2.1 Motors. Motors shall be rated for continuous duty and shall have ball or roller bearings of the sealed and permanently lubricating type. Unless otherwise specified (see 7.1), each motor shall meet the requirements for drip-proof enclosure.

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3. GENERAL REQUIREMENTS

3.1 Metric products. Products manufactured to metric dimensions will be considered on an equal basis with those manufactured using inch-pound units, provided they fall within the specified tolerances using conversion tables contained in the latest revision of ASTM E 380 and ANSI IEE 268M/Metric Practice, and all other requirements of this commercial item description are met. If a product is manufactured to metric dimensions and those dimensions exceed the tolerances specified in the inch-pound units, a request shall be made to the contracting officer to determine if the product is acceptable. The contracting officer has the option of accepting or rejecting the product.

3.2 Safety and health requirements All parts, components, mechanisms, and assemblies furnished on the jig saw, whether or not specifically required herein, shall conform to all requirements of OSHA 29 CFR 1910. Additional safety and health requirements shall be as specified (see 7.1).

3.3 Noise level Unless otherwise specified (see 7.1), noise emitted by the jig saw when operating under a no-load condition shall not exceed 84 decibels (db) when measured on the "A" scale of a type I or type II sound level meter at slow response.

3.4 Enviromental protection. During the manufacture of the jig saw, materials prohibited by Federal, state, or local statues in effect on the date of the contract shall not be used.

3.5 Interchangeability. All parts having the same manufacturer's part number shall be functionally and dimensionally interchangeable. All parts shall be manufactured according to standards that shall permit replacement or adjustment without modification of the jig saw or its parts.

3.6 Threads. All threaded parts of the saw, including related attachments and accessories, shall conform to FED-STD-H28 and the applicable "Detailed Standard" section referenced therein.

3.7 Operating and maintenance instructions Operating and maintenance instructions shall be provided with each jig saw furnished. The instructions shall be written in English and shall include directions and information necessary for safe operation and maintenance of the jig. A list of replacement parts with part numbers shall also be included.

3.8 Marking on instruments charts, and plates. All words on the saw including all instruments, charts, plates, and related attachments shall be in the English language. Characters shall be bold-faced and on a contrasting background. All plates shall be corrosion-resistant.

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3.8.1 Data plate. All standard data plates normally provided with the manufacturer's standard commercial saw shall be furnished. Any additional data plates shall be as specified and fully described by the procuring activity (see 7.1).

3.9 Reference documents. Unless otherwise specified (see 7.1), the documents referenced herein shall be the issues in effect on the date of issuance of the invitation for bid (IFB) or request for proposal (RFP). These documents form a part of this commercial item description to the extent specified. In the event of a conflict between this document and a document referenced herein, this document takes precedence.

4. REGULATORY REQUIREMENTS

4.1 **Reclaimed materials.** The offeror/contractor is encouraged to use recovered materials in accordance with Public Law 94-580 to the maximum extent practicable.

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. The Government reserves the right to require proof of such conformance prior to the first delivery, and thereafter, as may be otherwise provided for under the provisions of the contract.

5.2 **Responsibility for inspection.** Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection, examination, and test requirements specified herein. Except as otherwise specified in the contract or purchase order, the contractor may use his own or any other facilities suitable for the performance of the inspection requirements specified herein unless disapproved by the Government. The Government reserves the right to perform any of the inspections, examinations, and tests set forth in this commercial item description where such inspections, examinations, and tests are deemed necessary to assure supplies and services conform to the prescribed requirements.

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5.3 Responsibility for compliance. All items shall meet the requirements specified herein. The inspections set forth in this commercial item description shall become a part of the contractor's overall inspection system or quality assurance program. The absence of any inspection requirements shall not relieve the contractor of ensuring that all products or supplies submitted to the Government for acceptance comply with all requirements of the contract. Sampling inspection, as part of manufacturing operations, is an acceptable practice to conformance to the requirements; however, this does not authorize submission of known defective material or supplies, either indicated or actual, nor does it commit the Government to accept defective materials.

5.4 Sampling inspection. Sampling inspection shall be performed in accordance with the requirements of MIL-STD-105. Sampling shall be at a level with an AQL of 4.0.

5.4.1 Examination. Each jig saw submitted for sampling inspection shall be visually examined to determine conformance with all requirements of this commercial item description.

5.5 Performance tests.

5.5.1 Operational test. Each jig saw shall be operated at no-load for not less than 15 minutes. Proper operation of all controls, motors, adjusting mechanisms, and accessories shall be verified during the trial period.

5.5.2 Performance test. The saw shall be tested for conformance with 2.1.6 by sawing patterns from kiln-dried hardwood pieces using a standard blade, 1/4 inch wide with seven (7) teeth per inch. For patterns (a) and (b), the worktable shall be set and locked at the horizontal or "0" degree tilt. The top of the table or bottom of the workpiece shall be not less than 12 inches wide and 30 inches long and shall be of the thickness of the workpiece specified in table I. The workpiece shall be marked in two patterns: "

a. A circular pattern, four inches in diameter, with the center 2-1/2 inches from the edge and six inches from one end.

b. A square pattern, four inches square, with the center two inches from the same edge and six inches from one end.

5.5.3 Circular test. The workpiece shall be sawed on a circular pattern (see 5.5.2), "with deviations of not more than ± 1/3 inch out-of-round and not more than ± one angular degree out-of-square.

5.5.4 Squareness test. The workpiece shall be sawed on a square pattern (see 5.5.2), with deviations of not more than ±one (1) angular degree out–of–square on any cut.

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5.5.5 Table tilt test. The table shall be tested for tilt as specified in table I.

5.5.6 Blade motion test. The blade motion shall be tested for length of stroke and frequency as specified in table I.

5.5.7 Brake test. The brake on the 36-inch saw shall be tested for an effective stopping time of 10 seconds or less.

5.5.8 Environmental protection certificate. The contractor shall certify and maintain substantiating evidence that the product offered complies" with all environmental protection restrictions as required herein. The Government reserves the right to require proof of such conformance prior to first delivery, and thereafter, as may be otherwise provided under the provisions-of the contract.

6. PRESERVATION, PACKAGING, PACKING, MARKING, AND LABELING

6.1 Preservation, packaging, packing, marking, and labeling. Preservation, packaging, packing, marking, and labeling shall be in accordance with the requirements of ASTM D 3951 unless otherwise specified in the contract or order.

7. NOTES

7.1 Ordering data. Purchasers should select the preferred options permitted herein and include the following information on procurement documents.

a. Title, number, and date of this commercial item description.

b. Size and quantity.

c. Separate base design, if required (see 2.1.1).

d. Optional jig guides and/or other fixtures, if different (see 2.1.2).

e. Electrical system, if different (see 2.2).

f. Initially wired system, if different (see 2.2).

g. Motors, if different (see 2.2.1)

h. Additional safety and health standards, if required (see 3.2).

i. Noise level, if different (see 3.3)

j. Sampling inspection, if required (see 5.4.2).

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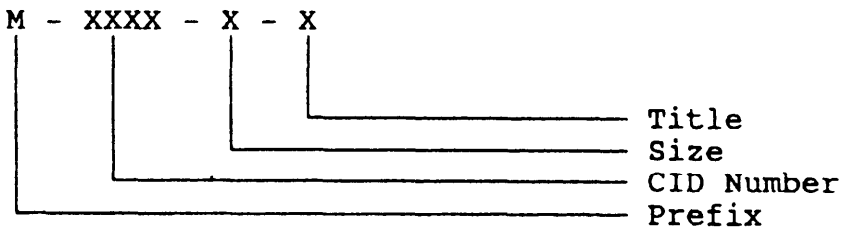
7.2 Parts identical number (PIN). The following identification numbering procedure is for Government purposes and does not constitute a requirement for contractors.



7.3 Source for documents referenced in this CID ASTM 380 and ANSI/IEEE 268 M/Metric Practice copies are available from the American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, PA 19103-0001.

Federal Standard H28 (FED-STD-H28) is available from the Standardization Documents order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19120-5099.

Military Standard 105 (MIL-STD-105) is available from the Standardization Documents Order Desk, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19120-5099.

7.3.1 National Fire Protection Association (NFPA 79) National electrical standards for industrial machinery is available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269-9101.

7.4 Cross-reference of classification changes. Classification changes from the previous issue(s) are as follows:

MIL-S-80034C	A-A-NEW
Size: 24-inch throat	Size: 24-inch throat
Size: 36-inch throat	Size: 36-inch throat

7.5 National Stock Numer(NSN). All items procured using the NSNs identified in MIL-S-80034C may be procured using this commercial item description.

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7.6 **Preparing activity.** This document was prepared by the Defense General Supply Center (DGSC-SSM), 8000 Jefferson Davis Highway, Richmond, VA 23297-5647; (804) 279-5877 or DSN 695-5877.

MILITARY INTERESTS:

Custodians:
DLA - GS
Army - AL
Navy - SH
Air Force - 99

Review activities:
Army - ME, CE
Air Force - 84
DLA - CS

User activities:
Navy - MC

Preparing Activity:
DLA - GS

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