INCH-POUND
MIL-F-43402D
INT. AMENDMENT 3(SH)
29 October 1992
USED IN LIEU OF
AMENDMENT 2
24 March 1988

MILITARY SPECIFICATION

FOOD CUTTER, ELECTRIC

This interim amendment is approved for use within the Naval Sea Systems Command, Department of the Navy, with MIL-F-43402D, dated 30 December 1982.

PAGE 2

2.1, under "STANDARDS MILITARY", Add the following:

"MIL-STD-130 - Identification Marking of U.S. Military Property.
MIL-STD-167/1 - Mechanical Vibrations of Shipboard Equipment (Type I - Environmental and Type II - Internally Excited).
MIL-STD-1472 - Human Engineering Design Criteria for Military Systems, Equipment and Facilities.

Delete: MIL-STD-1188 - Commercial Packaging of Supplies and Equipment."

2.2: Add the following:

"D 3951 - Standard Practice for Commercial Packaging."

PAGE 3

2.2: Add the following:

"NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION STANDARDS (NEMA)

(Applications for NEMA standards should be addressed to the National Electrical Manufacturers Association, 2101 L St., N.W., Washington, DC 20037)."

AMSC N/A
FSC 7320

Add the following paragraph:

"2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein (except for associated detail specifications, specification sheets or MS standards), the text of this document shall take precedence. Nothing in this document, however, shall supersede applicable laws and regulations unless a specific exemption has been obtained."

3.2: Delete and substitute:

"3.2 Code and standards. The food cutter shall conform to the applicable requirements of UL Standard No. 73 and NSF Standard Nos. 2 and 8. Satisfactory evidence that these requirements have been met shall be submitted to the contracting officer or his authorized representative prior to the start of production (see 4.3)."

3.2.1: Delete entirely.

PAGE 4

3.2.1.1: Delete entirely.

3.2.1.2: Delete entirely.

PAGE 5

Table I, under size 1 maximum bowl diameter: Delete "14-5/16" and substitute "15-1/4".

3.4.5.2: Delete last two sentences and substitute: "When specified (see 6.2), food cutters shall be provided with a 6 foot ±2 inches long electric cord. The cord shall have a NEMA 5-15 P plug for 120-volt, 1-phase, 60 hertz or a NEMA L-15-20P plug for 208-volt, 3 phase, 60 hertz."

PAGE 6

3.4.5.3, after last sentence: Add the following:

"When specified for shipboard use, requirements and test limits of class A4 for surface ships and class A5 for submarines of MIL-STD-461 apply. Shipboard equipment shall meet the emission and susceptibility requirements for CE01, CE03, and RE02."

3.8, Delete and substitute:

"3.8 Data-name plates. The food cutter shall be furnished with a data-name plate in accordance with the applicable requirements of MIL-STD-130 except the requirements for; (a) Methods of applying, (b) Identification tags, (c) Information not required and (d) Optional marking information shall not apply. The data plates shall be made of minimum 20 gauge corrosion-resisting metal and attached to the food cutter by rivets, screws or welding in such a manner as to meet the

applicable National Sanitation Foundation sanitary requirements for this equipment. The plate shall contain the following information which shall be stamped, engraved or applied by photosensitive means:

National Stock Number
Procurement Instrument Identification Number
Specification Data
Manufacturer's Name, Address and Telephone Number
Supplier's Name, Address and Telephone Number
(List only if different from Manufacturer)
Manufacturer's Model Number
Government Approved Manual Number (See 6.2)

Each plate shall be placed so that it is readily visible to operator during normal operating use and so as to not adversely affect the life and utility of the food cutter."

PAGE 7

Add the following new paragraphs:

"3.11.4 Inclined operation. When specified for shipboard use, the food cutter shall operate satisfactorily when inclined at an angle of 15 degrees each side of the vertical in each of two vertical planes at right angles to each other, with no spillage of fluid or product when tested as specified in 4.4.6.

3.11.5 Environmental suitability. When specified for shipboard use, the food cutter shall be capable of withstanding ship's vibration and motion. Controls, switches, moving parts and electrical circuits shall operate under shipboard conditions without malfunction, binding, excessive looseness, or damage when tested as specified in 4.4.7.

* 3.11.6 High voltage labels. When specified for shipboard use (see 6.2), a Danger High Voltage label shall be affixed to the equipments outer case assembly, on or adjacent to each service access cover and adjacent to one of the fasteners which secures the cover. A high voltage warning label shall also be placed near the high voltage components inside the equipment. The label shall include but is not limited to the following warnings:

a. A warning of high voltage.
b. Power supply must be disconnected before using.
c. Access covers must be in place during use.
d. Servicing should be done by authorized individuals.

3.12 Human factors criteria (for Navy use only). Human factors engineering criteria, principles, and practices, as defined in MIL-STD-1472, shall be incorporated into the design of the food cutter. Maintenance and operation activities shall permit safe and efficient performance by the 5th percentile female to the 95th percentile male as defined in MIL-STD-1472. Controls and switches shall be selected and integrated into the design of the cutters so as to meet the applicable requirements of MIL-STD-1472. Sufficient clearance or free area required

around an item shall permit an individual with applicable 5th to 95th percentile body dimensions and physical capabilities to safely operate, maintain, remove, or replace that item. When establishing accessibility requirements, both physical and visual access must be provided along with access for the use of any tools, test equipment, or replacement parts needed. When inspecting for defects and performing tests, the equipment shall adhere to the human factors engineering considerations listed herein.

4.1.1 Responsibility for compliance. All items must meet all requirements of sections 3 and 5. The inspection set forth in this specification shall become a part of the contractor's overall inspection system or quality program. The absence of any inspection requirements in the document shall not relieve the contractor of the responsibility of assuring that all products or supplies submitted to the Government for acceptance comply with all the requirements of the contract. Sampling in quality conformance does not authorize submission of known defective material, either indicated or actual, nor does it commit the Government to acceptance of defective material."

PAGE 10

Table II: Delete:

"Marking for identification Missing, incomplete, illegible X"
and substitute:

"Data name plates -	Omitted or not as specified	(minor)	X
	Information incomplete or not legible	(minor)	X
	Not located so as to be readily visible to operator	(minor)	X"

4.2.2.2, line 2, after "specified": Add "in table I and (when applicable) 3.4.6."

4.2.2.3, line 2: Delete "and 4.4.3 when applicable" and substitute ", 4.4.6, 4.4.7, and 4.4.3 when applicable."

4.2.3, line 4: Delete "except it need not be closed".

PAGE 11

4.3: Delete and substitute:

"4.3 Certification compliance examination. Certifications, certified tests reports or listing marks for standards, submitted in accordance with 3.2 shall be examined and validated as proof of compliance. Prior to government approval of first shipment the contractor shall submit to the contracting officer or his authorized representative for approval certification that the food cutter he proposes to furnish meet the applicable requirements of UL and NSF as follows:

4.3.1 UL. Acceptable evidence of meeting the requirements of UL shall be the UL listing mark, or a certified test report from a recognized independent testing laboratory acceptable to the Government, indicating that the food cutters offered have been tested and conform to UL Standard No. 73.

4.3.2 NSF. Acceptable evidence of meeting the requirements of NSF shall be:

(1) A listing in the current edition of the NSF "Listing of Food Service Equipment" and display of the NSF seal on the finished food cutter, or
(2) A certification for the food cutter issued by the NSF under their special one-time contract evaluation/certification service or,
(3) A certified test report acceptable to the contracting officer with the advice of the Army Surgeon General from an independent testing laboratory, indicating the food cutters have been tested and conform to the specified NSF Standards."

4.4.3, line 3 after "method": Insert "CE01,".

PAGE 12

Add the following new paragraphs:

"4.4.6 Inclined operational test (for shipboard use). After the test in 4.4.5 is completed, position the food cutter with the base set at an angle of 15 degrees, then operate the food cutter for 30 seconds at each side of the vertical in each of two vertical planes at right angles to each other. At each of these positions observe for conformance with specified requirements (see 3.11.4). For the test, the food cutter shall be filled to capacity with processed meat or vegetables.

4.4.7 Shipboard environmental test. The food cutter under normal operating conditions, shall be tested in accordance with MIL-STD-167/1, type I equipment. The food cutter shall be secured to the test machine in the same manner that it will be secured on shipboard (see 3.10.3). Failure of the food cutter to perform its function during and after testing, or to meet the requirements of 3.11.5 shall constitute the failure of this test."

PAGE 13

5.1.2 and 5.2.3: Delete: "MIL-STD-1188" and substitute "ASTM D 3951".

5.3: Delete "MIL-STD-1188" and substitute "ASTM D 3951".

6.2: Add the following:

"(1) Government approved manual number to be included on data-name plate (see 3.8)."

Add the following new paragraph:

"6.5 Technical manuals. The requirement for technical manuals should be considered when this document is cited on a contract. If technical manuals are required, a contract exhibit must be prepared to fully describe statement of work criteria and delivery instructions, and cite the applicable technical manual requirements. The technical manuals must be acquired by separate Contract Line Item Number (CLIN) in the contract."

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Preparing activity:
Navy - SH
(Project 7320-N894)

MIL-F-43402D
AMENDMENT-2
24 March 1988
SUPERSEDING
AMENDMENT-1
1 August 1986

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Custodians:

Army - GL
Navy - YD
Air Force - 99

Preparing Activity:

Army - GL

Project No. 7320-0837

Review activities:

Army - MD, TS
Navy - SH
DLA - GS

User activity:

Air Force - 84

MIL-F-43402D
30 December 1982
SUPERSEDING
MIL-F-43402C
18 June 1980

MILITARY SPECIFICATION

FOOD CUTTER, ELECTRIC

This specification is approved for use by all Departments and Agencies of the Department of Defense.

1. SCOPE

1.1 Scope. This document covers an electric food cutter for bench or table mounting furnished with or without table.

1.2 Classification. The food cutters shall be of the following types, and sizes, as specified (see 6.2).

Type I - Bench or table mounted
Size 1 - Bowl capacity of 5 pounds of fresh meat
Size 2 - Bowl capacity of 14 to 15 pounds of fresh meat

2. APPLICABLE DOCUMENTS

2.1 Government documents. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

SPECIFICATIONS

FEDERAL

CC-M-1807 - Motor, Alternating Current, Fractional and Integral Horsepower (500 hp and Smaller)
PPP-B-601 - Boxes, Wood, Cleated-Plywood
PPP-B-621 - Boxes, Wood, Nailed and Lock-Corner
PPP-B-636 - Boxes, Shipping, Fiberboard
PPP-T-60 - Tape: Packaging, Waterproof

Beneficial comments (recommendations, additions, deletions) and any pertinent data which may be of use in improving this document should be addressed to: US Army Natick Research and Development Laboratories, Natick, MA 01760 by using the self-addressed Standardization Document Improvement Proposal (DD Form 1426) appearing at the end of this document or by letter.

MILITARY

MIL-P-116 - Preservation, Packaging, Methods Of
MIL-B-121 - Barrier Material, Greaseproofed, Waterproofed, Flexible
MIL-T-15071 - Manual, Technical, Equipments and Systems Content Requirements For

STANDARDS

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage
MIL-STD-461 - Electromagnetic Emission and Susceptibility Requirements for the Control of Electromagnetic Interference
MIL-STD-462 - Electromagnetic Interference Characteristics, Measurement Of
MIL-STD-1186 - Cushioning, Anchoring, Bracing, Blocking and Waterproofing; with Appropriate Test Methods
MIL-STD-1188 - Commercial Packaging of Supplies and Equipment

(Copies of documents required by manufacturers in connection with specific acquisition functions should be obtained from the contracting activity or as directed by the contracting officer.)

2.2 Other publications. Unless otherwise specified, the following documents of the issue in effect on date of invitation for bids or request for proposal, form a part of this document to the extent specified herein.

AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

E 18 - Rockwell Hardness and Rockwell Superficial Hardness of Metallic Materials
A 167 - Stainless and Heat-Resisting Chromium Nickel Steel, Plate, Sheet and Strip
A 176 - Stainless and Heat-Resisting, Chromium Steel Plate, Sheet and Strip
A 276 - Stainless and Heat-Resisting Steel Bars and Shapes
A 351 - Austenitic Steel Castings for High Temperature Service
A 412 - Steel Plate, Sheet and Strip, Stainless and Heat-Resisting Chromium Nickel Manganese
A 582 - Free Machining Stainless and Heat-Resisting Steel Bars, Hot Rolled or Cold Finished

(Application for copies should be addressed to the American Society for Testing and Materials, 1916 Race Street Philadelphia, PA 19103.)

NATIONAL SANITATION FOUNDATION (NSF)

Standard No. 2 - Food Service Equipment
Standard No. 8 - Commercial Powered Food Preparation Equipment

Listing of Food Service Equipment

(Application for copies should be addressed to the National Sanitation Foundation, NSF Building, Ann Arbor, MI 48105.)

UNDERWRITERS LABORATORIES INC. (UL)

Standard No. 73 - Motor Operated Appliances

(Application for copies should be addressed to the Underwriters Laboratories, Inc., 333 Pfingsten Road, Northbrook, IL 60062.)

(Technical society and technical association documents are generally available for reference from libraries. They are also distributed among technical groups and using Federal agencies.)

3. REQUIREMENTS

3.1 Standard product. The food cutter shall, as a minimum, be in accordance with the requirements of this document and shall be the manufacturer's standard commercial product with any added features needed to comply with the requirements of this document. Modifications to add features shall not incorporate different parts unless such parts are used on other current commercial models. Standard or modified commercial products furnished in accordance with this document shall be identifiable by all regular manufacturer's or commercial service organizations servicing the brand involved. Service organizations shall be capable of providing complete parts and repair services on models furnished to the government consistent with their normal commercial practices.

3.2 Codes and standards. The food cutter and table (when applicable) shall conform to applicable requirements of NSF Standard No. 8 and 2, respectively, and UL Standard No. 73.

3.2.1 Compliance. Prior to approval of the first shipment the contractor shall submit to the contracting officer or his authorized representative satisfactory evidence that the food cutter complies to the requirements of NSF and UL, as applicable.

3.2.1.1 NSF. Acceptable evidence of meeting the requirements of NSF shall be one of the following:

(1) A listing in the current edition of the NSF "Listing of Food Service Equipment" and display of the NSF seal on the finished food cutter and table.

(2) A certification of the food cutter and table issued by NSF under their special one-time contract evaluation/certification service.

(3) A certified test report from a recognized independent testing laboratory acceptable to the medical department of the service for which the food cutter and table are being procured, indicating that the food cutter and table have been tested and conform to NSF Standard No. 8 and 2, respectively.

3.2.1.2 UL. Acceptable evidence of meeting the applicable requirements of UL shall be the UL Listing Mark, or a certified test report from a recognized independent testing laboratory, acceptable to the Government, indicating that the food cutter has been tested and conforms to UL Standard No. 73.

3.3 Materials (see 6.3) and components. Material and components shall be as specified herein. Material not definitely specified shall be of the quality normally used by the manufacturer for his standard food cutter, provided the completed item complies with all provisions of this document.

3.3.1 Stainless steel. Stainless steel shall conform to ASTM A 167, A 351, A 412 and A 582, except knives shall conform to type 430 of ASTM A 176 or type 440 of ASTM A 276.

3.4 Design and construction. The food cutter shall consist essentially of a control switch, bowl, cutting knives, knife guard, bowl cover, deflector plate, supporting frame, and an electric motor. The food cutter bowl shall be fabricated from stainless steel. The food cutter shall be driven by an electric motor specified in 3.4.5.1. The knife guard, bowl cover and deflector plate shall be fabricated from aluminum castings, cast iron, stainless steel sheet, or cast stainless steel and shall be designed as one integral unit. The integral unit shall be hinged to the frame in such a manner that the unit may be lifted and supported in a position completely exposing the knives. The bowl cover shall be designed to interlock, either with the switch that starts the machine so that the bowl cover cannot be raised with the switch in the "on" position, or with a switch which disconnects the motor when the bowl cover is raised. The food cutter shall have provisions for bench or table mounting. When specified, the food cutter shall be furnished with a table specified in 3.4.6. The food cutters shall not have a self-emptying device. All parts subject to wear shall be accessible for adjustment and replacement. The size 1 and size 2 cutters shall be capable of processing at least 5 pounds and 15 pounds of raw beef, respectively, in not more than 2 minutes when tested as specified in 4.4.5.

3.4.1 Dimensions. Dimensions for the food cutters shall be as shown in table I.

TABLE I. Dimensions

	Bowl Diameter		Maximum Dimensions		
	Minimum	Maximum	Length	Width	Height
Size	Inches	Inches	Inches	Inches	Inches
1	14	14-5/16	36-1/2	20	15-1/8
2	18	21-7/8	55-1/8	31-1/2	23

3.4.2 Bowls. The bowl capacity shall be 5 pounds of fresh meat for the size 1 food cutter, and 15 pounds fresh meat maximum for the size 2 food cutter when tested as specified in 4.4.1. Bowls shall rotate at not less than 14 and not more than 28 revolutions per minute (rpm) when tested as specified in 4.4.4.

3.4.3 Cutting knives. Cutting knives shall be fabricated of stainless steel specified in 3.3.1. Each cutter shall have a minimum of two cutting knives. Knives shall have a hardness between 50 and 56 on the Rockwell "C" scale when tested as specified in 4.4.2.

3.4.4 Supporting frame. The supporting frame shall be fabricated of cast iron, carbon steel, aluminum, or stainless steel.

3.4.5 Electrical requirements.

3.4.5.1 Motors. Electric motors shall be continuous duty, totally inclosed, induction type conforming to CC-M-1807. Unless otherwise specified, the motor for size 1 food cutters shall be minimum 1/3 horsepower (hp). The motor for size 2 food cutters shall be minimum 1 hp. Unless otherwise specified (see 6.2), the size 1 food cutter shall be wired for operation on a nominal 120-volt, 1-phase, 60-hertz alternating current (AC) system, and the size 2 food cutter shall be wired for operation on a nominal 208-volt, 3-phase, 60-hertz AC system. Provision for grounding shall be included for each food cutter.

3.4.5.2 Wiring. The food cutter shall have provisions for connection of armored cable or conduit. Food cutters shall have provisions for grounding. When specified (see 6.2), food cutters shall be provided with 6 foot long minimum electric cord. The cord shall be a 3 wire grounding type having a three-prong, grounding, attachment plug cap.

3.4.5.3 Electromagnetic compatibility. When specified (see 6.2), equipment shall be designed and equipped for electromagnetic compatibility in accordance with class C3, group 1, of MIL-STD-461.

3.4.6 Table. When specified (see 6.2), a table shall be provided for the food cutter. The table shall be constructed of stainless steel with two undershelves and swivel casters, two casters shall be equipped with brakes, or four legs with adjustable feet as specified (see 6.2). Maximum dimension of the table shall be 32 inches wide by 27 inches deep by 38 inches high. The top surface of the bottom shelf shall be 15 inches from the floor and the top shelf surface 13 inches above the bottom shelf. Reinforcing shall be provided under the table surface to rigidly support the food cutter.

3.5 Operation. The knives and bowls shall rotate simultaneously so that the food contained in the bowl is cut by each rotating knife during the cutting stroke. All moving parts of the food cutter machine including attachments, shall fit and operate smoothly when tested as specified in 4.4.4.

3.6 Attachment hub. Unless otherwise specified (see 6.2), food cutters shall be provided with a hub for operating a 9-inch vegetable slicing attachment, a meat chopping attachment, a dicer and french fry attachment, and a speed increaser. Food cutters, having a hub shall be provided with any of the following attachments as specified (see 6.2):

(a) 9-inch vegetable slicer
(b) Meat chopper (grinder)
(c) Dicer and french fry attachment
(d) Speed increaser attachment (see 3.7)

3.7 Speed increaser attachment. The speed increaser, of cast aluminum, highly polished, permanently lubricated, shall be either fixed, and operated in the vertical position only, or be designed to rotate 180 degrees (3.2 rad), thus lowering the connected attachments. If rotatable, the speed increaser shall have a permanently attached caution plate with: "DO NOT SUBMERGE IN LIQUID" printed in characters 1/4 inch high.

3.8 Identification marking. Each food cutter shall have an identification plate. The identification plate shall include the marking requirements of UL Standard No. 73.

3.9 Finish. Finish of food cutter machine shall be smooth on all surfaces, and edges, and free from discolorations or stains.

3.10 Workmanship. All components and assemblies of the food cutter machine shall be free from dirt and other harmful extraneous material, burrs, slivers, rough die, tool and grind marks, dents and cracks. Castings, molded parts, and stampings, if used, shall be free of sand, fins, pits, blow holes and sprues. External surfaces shall be free from sharp edges and corners, except when corners are required.

3.10.1 Metal fabrication. Metal used in the fabrication of the food cutter machine shall provide for original quality surface finish and shall be free from kinks and unspecified bends. Forming and shearing shall not cause damage to the metal and shall be done neatly and accurately. Corners shall be square and true and all bends of a major nature shall be made with dies or fixtures to insure uniformity of size and shape.

3.10.2 Welding. The surfaces of parts to be welded shall be free from rust, scale, paint, grease and other foreign matter. Welds shall be smooth and free of cracks, burn holes, undercuts or incompleted fusion. All scale and flux shall be removed from the finish weld area.

3.10.3 Fastening devices. Threaded fastener and rivet holes shall be accurately punched or drilled and shall have burrs removed. Threaded fasteners shall not be broken, cracked or stripped and shall be securely torqued. Rivets shall fill the hole completely and the heads shall be in full contact with the surface of the member and concentric with the hole.

3.11 Navy shipboard installation. For Navy shipboard installation (see 6.2), design and construction, and electrical requirements shall be as follows.

3.11.1 Design and construction. For Navy shipboard use only, the maximum overall dimensions shall be 37 inches long by 26 inches wide by 23 inches high.

3.11.2 Supporting frame. For Navy shipboard (see 6.2) the food cutter shall be provided with 3/8-16 threaded holes for mounting.

3.11.3 Motors. For Navy shipboard use, food cutters shall be equipped for operation on 440 volts, 60-hertz 3 phase AC system. Provisions for grounding shall be provided for each unit.

4. QUALITY ASSURANCE PROVISIONS

4.1 Responsibility for inspection. Unless otherwise specified in the contract or purchase order, the contractor is responsible for the performance of all inspection requirements as 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 set forth in the document where such inspections are deemed necessary to assure supplies and services conform to prescribed requirements.

4.2 Quality conformance inspection. Unless otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

4.2.1 Component and material inspection. In accordance with 4.1, components and materials shall be inspected in accordance with all the requirements of referenced documents unless otherwise excluded, amended, modified, or qualified in this document or applicable purchase document.

4.2.1.1 Intermediate testing. The cutting knives shall be tested for hardness in accordance with 4.4.2. Three determinations shall be made on each sample unit. Failure of one or more determinations to meet specified requirements shall be classified a defect. The inspection level shall be S-2 with an acceptable quality level (AQL) of 2.5 defects, expressed in defects per hundred units. The sample unit shall be one cutting knife. The lot shall consist of all cutting knives offered for inspection at one time.

4.2.2 End item inspection. The inspection lot shall consist of all food cutter machines offered for inspection at one time.

4.2.2.1 Visual examination. Examination of the food cutter machine shall be in accordance with the classification of defects listed in table II. The inspection level shall be level II with an AQL of 2.5 for major defects and 6.5 for total defects, expressed in terms of defects per hundred units.

TABLE II. Classification of defects

Examine	Defect	Classification Major	Minor
Standard product	Item not in accordance with manufacturer's standard product	X	
Finish	Not finished as specified		X
	Evidence of discoloration or stains	X	
Construction, design and workmanship	Component missing	X	
	Any component fractured, bent, punctured, dented, buckled or malformed	X	
	Any burr, sliver, sharp edge, rough die, tool, gouge, trim or grind marks	X	
	Component not accessible for adjustment and replacement (where required)		X
	Knife guard, bowl cover, and deflector plate not integral unit	X	
	Not fabricated of material specified	X	

TABLE II. Classification of defects (cont'd)

Examine	Defect	Classification Major	Minor
Construction, design and workmanship (cont'd)	Bowl cover capable of being raised with switch in "on" position, or if equipped with separate interlock switch, raising bowl does not stop motor so that cutters are stopped by the time cover is raised to open position	X	
	Not designed for bench or table mounting	X	
	Not provided with minimum of two cutting knives	X	
	Integral unit not capable of being lifted and supported to completely expose knives	X	
	Knives and bowls do not rotate simultaneously	X	
Table (when specified)	Two undershelves not provided	X	
	Casters not of the swivel type	X	
	Two casters not equipped with brakes	X	
	Table surface not rigidly supported	X	
Accessories and attachments (as applicable)	Missing, or not as specified	X	
Wiring	Provisions not made for connection of armored cable or conduit	X	
	Not supplied with cord (when specified)	X	
	No provision for grounding	X	
Welding and brazing (where required)	Missing	X	
	Incomplete, burn holes, cracked or porous	X	
	Slag inclusion, undercut, not smooth and uniform		X
	Scale or flux deposits not removed		X
	Not free from rust, scale, paint, grease and other foreign matter	X	

TABLE II. Classification of defects (cont'd)

Examine	Defect	Classification Major	Minor
Soldering (when applicable)	Missing, not adherent, or incomplete	X	
	Not clean (flux or flux residue not removed), not smooth (surface not finished neatly) or pinholes in solder		X
Fastening devices	Missing, cracked, or stripped	X	
	Fastener loose		X
	Fastener improperly torqued	X	
	Rivet holes not accurately punched	X	
	Rivet not peened properly		X
Marking for identification	Missing, incomplete, illegible	X	

4.2.2.2 Dimensional examination. Examination shall be made of the food cutter machine for compliance with the dimensions specified. Any dimension not within the specified requirements shall constitute a defect. The inspection level shall be S-2 with an AQL of 4.0 defects, expressed in defects per hundred units.

4.2.2.3 End item testing. One representative production unit shall be tested in accordance with 4.4.1, 4.4.4, 4.4.5 and 4.4.3 when applicable. Failure to pass any test shall be cause for rejection of the lot.

4.2.3 Packaging inspection. An examination shall be made to determine whether preservation, packing and marking comply with section 5 requirements. Defects shall be as indicated in table III. The sample unit shall be one shipping container fully packaged except it need not be closed. The lot shall be the number of containers offered for inspection at one time. The inspection level shall be S-2 with an AQL of 4.0 defects, expressed in terms of defects per hundred units.

TABLE III. Packaging inspection

Examine	Defect
Marking, exterior and interior	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application
Materials	Any component missing, damaged, or not as specified

TABLE III. Packaging inspection (cont'd)

Examine	Defect
Workmanship	Inadequate application of components such as; incomplete closure of container, flap, improper taping, or inadequate stapling Bulged or distorted container
Preservation	Preservative, improperly applied or missing

4.3 Certificate examination. Certificate of compliance, certified test reports, approval label or listing marks for codes and standards, as applicable, that are submitted as proof of compliance with the document requirements shall be as examined and validated.

4.4 Test methods.

4.4.1 Bowl capacity test. The food cutter bowl shall be filled with processed meat and then emptied and weighed to determine compliance with the capacity requirements of 3.4.2. Any noncompliance with the requirements specified shall constitute failure of this test.

4.4.2 Hardness test. Cutting knives shall be tested for hardness in accordance with ASTM E 18 to determine compliance with 3.4.3. Any noncompliance with the requirements specified shall constitute failure of this test.

4.4.3 Electromagnetic compatibility test. When electromagnetic compatibility is required, the production unit shall be tested by the contractor in accordance with the test method CE03 and RE02 of MIL-STD-462. The Government reserves the right to witness tests performed by the contractor or an independent testing agency. The contractor shall furnish the contracting officer written certification that the Interference Control Plan, the EMI/EMC Test Plan, the Electromagnetic Compatibility Test Report and the requirements meet MIL-STD-461. Any noncompliance with the requirements specified shall constitute failure of this test.

4.4.4 Operation test. The assembled food cutter (and attachments, if provided) shall be connected to an electric power supply having the same characteristics as specified in the contract and operated without load for a period of 10 minutes to determine compliance with the operational requirements of 3.5. During this test, the bowl rpm shall be checked to determine compliance with 3.4.2. Any noncompliance with the requirements specified shall constitute failure of this test.

4.4.5 Performance test. Fresh, raw, fat-trimmed boneless chuck at a temperature of 60 F plus or minus 5 F, cut up into 2 inch cubes for the size 1 food cutter and 3 inch cubes for the size 2 food cutter shall be used for this test. The machine shall be started and with the bowl rotating, 5 pounds of meat shall be fed into the size 1 bowl and 15 pounds of meat shall be fed into the size 2 bowl. During the test, no meat shall be thrown out of the bowl and no meat shall clog the knife guard or deflector plate. The time necessary for processing the meat shall be checked to determine conformance with 3.4. Processed meat shall be comparable to hamburger that has been run through a 3/16-inch diameter hole. Any nonconformance with the requirements shall constitute failure of this test.

5. PACKAGING

5.1 Preservation. Preservation shall be level A or Commercial as specified (see 6.2).

5.1.1 Level A.

5.1.1.1 Cleaning and drying. All exposed uncoated ferrous metal surfaces shall be cleaned process C-1 of MIL-P-116 and thoroughly dried.

5.1.1.2 Application of preservative. All cleaned and dried surfaces which will be in contact with food shall be coated with type P-14 preservative of MIL-P-116.

5.1.1.3 Protection of preservatives. Coated surfaces from which a preservative might be removed by contact with packaging material shall be covered with barrier material conforming to type I or II, grade A, class 1 or 2 of MIL-B-121. The barrier material shall be secured with tape conforming to type III, or IV of PPP-T-60 or be heat sealed, when applicable.

5.1.1.4 Sealing. Openings into the motor and switches shall be sealed with the tape specified in 5.1.1.3.

5.1.1.5 Line cord. The line cord shall be looped and securely tied in place.

5.1.1.6 Securing. Parts that are free to move shall be secured in a fixed position to prevent movement or vibration while in transit.

5.1.1.7 Attachments. Attachments shall be preserved in accordance with method III of MIL-P-116.

5.1.1.8 Table (when applicable). Leveling legs shall be securely tightened so as not to loosen while in transit. Alternatively, the leveling legs may be detached, preserved in accordance with method III of MIL-P-116, and then be secured to the table. Casters, shall be unit packed in a fiberboard box conforming to grade W6c of PPP-B-636. The box shall be closed with the tape specified in 5.1.1.3, and then be secured to the table.

5.1.2 Commercial. Machines shall be preserved in accordance with MIL-STD-1188.

5.2 Packing. Packing shall be level A, B, or Commercial as specified (see 6.2).

5.2.1 Level A packing. One food cutter or one table (when applicable), preserved as specified in 5.1, shall be packed in a snug-fitting shipping container conforming to overseas type, style A or J, grade A or B, type 3 load of PPP-B-601 or class 2, style 2 of 4, grade A or B, type 3 load of PPP-B-621. The contents of each container shall be cushioned, anchored, braced, blocked and waterproofed in accordance with the applicable requirements of MIL-STD-1186. Each shipping container shall be fitted with skids (when applicable), closed, and reinforced in accordance with the requirements of the applicable container specification.

5.2.2 Level B packing. One food cutter or one table (when applicable), preserved as specified in 5.1, shall be packed as specified in 5.2.1, except the container shall be domestic type, grade B and the waterproofing requirements shall not apply.

5.2.3 Commercial packing. Machines, preserved as specified in 5.1, shall be packed in accordance with MIL-STD-1188.

5.3 Marking. In addition to any special marking required by the contract or purchase order, shipping containers shall be marked in accordance with MIL-STD-129 or MIL-STD-1188, as applicable.

6. NOTES

6.1 Intended use. The electric food cutter is intended to cut and mince meat, vegetables, and other foodstuffs by means of rotating knives and bowls.

6.2 Ordering data. Acquisition documents should specify the following:

(a) Title, number, and date of this document.
(b) Type, and size required (see 1.2).
(c) When food cutter is intended for Navy shipboard installation (see 1.2 and 3.11).
(d) Electrical characteristics, if other than specified (see 3.4.5.1 and 3.11.3).
(e) When a cord is required (see 3.4.5.2).
(f) When electromagnetic compatibility is required (see 3.4.5.3).
(g) When table is required (see 3.4.6).
(h) When an attachment hub is not required (see 3.6).
(i) Attachments required (see 3.6).
(j) Selection of applicable levels of preservation and packing (see 5.1 and 5.2).
(k) When adjustable feet are required (see 3.4.6).

6.3 Recycled material. It is encouraged that recycled material be used when practical as long as it meets the requirements of the document (see 3.3).

6.4 Changes from previous issue. Asterisks are not used in this revision to identify changes with respect to the previous issue, due to the extensiveness of the changes.

Custodians:

Army - GL
Navy - SA
Air Force - 99

Review activities:

Army - MD
Air Force - 84

Preparing activity:

Army - GL

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