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MILITARY SPECIFICATION

TABLES, FOOD PREPARATION, AND RACKS, TABLE, KITCHEN UTENSILS

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

1. SCOPE

- 1.1 Scope. This document covers food preparation tables and kitchen utensil racks for attachment to tables.
- 1.2 Classification. Tables shall be of the following types, sizes, grades, classes, styles, model, and form as specified, and racks shall be of the following sizes, as specified (see 6.2). Dimensions specified are in inches and are length by width by height respectively.

1.2.1 Tables.

- Square-edge top (for use with rack)

Size l - 72 by 30 by 34 inches

Size 2 - 96 by 30 by 34 inches Class 1 - With undershelf

Class 2 - Without undershelf

Class 3 - Without drawer

Class 4 - With drawer

Grade A - Stainless steel top, frame and legs

Grade C - Modified rubber or plastic top, stainless steel frame and legs

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

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- Square-edge top (for use without rack) `
Type II
          - 24 by 18-1/2 by 34 inches
  Size 1
  Class 1 - With under shelf
 Grade A - Stainless steel top, frame and legs
          - 72 by 30 by 34 inches
  Class 1 - With undershelf
  Class 3 - Without drawer
  Class 4 - With drawer
  Grade A - Stainless steel top, frame and legs
  Model 1 - With three top shelves (style 2 only)
   Form 1 - Straight sneeze guard
   Form 2 - Curved sneeze guard
  Size 3 - 120 by 30 by 36 inches
  Class 2 - Without undershelf
  Grade C - Modified rubber or plastic top, stainless steel
              frame and legs, (style 1 only)
          - 48 by 30 by 36 inches
  Size 4
  Class 1 - With undershelf
  Class 3 - Without drawer
  Class 4 - With drawer
  Grade A - Stainless steel top, frame and legs
   Model 1 - With three top shelves (style 2 only)
  Size 5 - 30 by 30 by 36 inches
  Class 1 - With undershelf
  Grade A - Stainless steel top, frame and legs
          - Rolled-rim top
Type III
          - 72 by 30 by 36 inches
  Size 1
          - 96 by 30 by 36 inches
  Size 2
  Size 3 - 48 by 30 by 36 inches
  Size 4 - 60 by 30 by 36 inches
          - 30 by 30 by 36 inches
  Size 5
  Size 6 - 24 by 30 by 36 inches
  Class 1 - With undershelf
  Class 2 - Without undershelf
  Class 3 - Without drawer
  Class 4 - With drawer
  Grade A - Stainless steel top, frame and legs
           - Marine-edge top
Type IV
          - 30 by 30 by 36 inches
  Size l
  Size 2 - 48 by 30 by 36 inches
  Size 3 - 72 by 30 by 36 inches
  Size 4 - 24 by 30 by 36 inches
  Class l - With undershelf
  Class 3 - Without drawer
  Class 4 - With drawer
  Grade A - Stainless steel top, frame and legs
           - With bullet feet
Style I
Style II
           - With casters
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1.2.2 Racks.

Size 1 - To fit type I, size 1 table Size 2 - To fit type I, size 2 table

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

L-P-390	Plastic, Molding and Extrusion Material, Polyethylene and Copolymers (Low, Medium, and High Density)	
L-P-394	- Plastic Molding Material, (Polypropylene Plastics,	
L-1-394	Injection and Extrusion)	
FF-C-77	- Casters, Rigid and Swivel (Institutional Duty)	
FF-N-105	- Nails, Brads, Staples and Spikes: Wire, Cut and	
\nn/ + 0/0	Wrought	
MMM-A-260	 Adhesive, Water-Resistant (for Sealing Waterproofed Paper) 	
PPP-B-601	- Boxes, Wood, Cleated-Plywood	
PPP-B-621	- Boxes, Wood, Nailed and Lock Corner	
PPP-B-636	- Boxes, Shipping, Fiberboard	
PPP-B-640	- Boxes, Fiberboard, Corrugated, Triple Wall	
PPP-B-1055	- Barrier, Material, Waterproofed, Flexible	
PPP-F-320	- Fiberboard: Corrugated and Solid, Sheet Stock	
	(Container Grade) and Cut Shapes	

MILITARY

MIL-P-116 - Preservation, Methods of MIL-C-52950 - Crates, Wood, Open and Covered

STANDARDS

FEDERAL

FED-STD-601 - Rubber: Sampling and Testing

MILITARY

MIL-STD-105 - Sampling Procedures and Tables for Inspection by Attributes
MIL-STD-129 - Marking for Shipment and Storage

DRAWINGS

US ARMY NATICK RESEARCH AND DEVELOPMENT LABORATORIES

5-11-801	- Tables, Food Preparation, and Racks, Table Kitchen
	Utensils; Pan Rack Details
5-11-802	- Tables, Food Preparation, and Racks, Table, Kitchen
	Utensils; Type I, Grades A anc C
5-11-933	- Tables, Food Preparation, and Racks, Table, Kitchen
	Utensils; Type I, Table Top, Grade C
5-11-959	- Tables, Food Preparation, and Racks, Table, Kitchen
	Utensils; Types II, Grades A and C
5-11-960	- Tables, Food Preparation, and Racks, Table, Kitchen
	Utensils; Types III and IV, Grade A

(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)

A167	 Stainless and Heat Resisting Chromium-Nickel Steel
	Plate, Sheet, and Strip
D2240	- Indentation Hardness of Rubber and Plastics by Means
	of Durometer
D3951	 Standard Practice for Commercial Packaging

(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

Listing of Food Service Equipment

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

- * 2.3 Order of precedence. In the event of a conflict between the text of this document and the references cited herein, the text of this document shall take precedence.
 - 3. REQUIREMENTS
 - 3.1 First article. When specified, a sample shall be subjected to first article inspection (see 4.3, 6.2, and 6.3).
 - 3.2 Standards. The food preparation tables and racks shall comply with the applicable requirements of NSF Standard No. 2.
 - 3.2.1 Compliance. Prior to approval of the first article if one is submitted, or prior to commencing production, the contractor shall submit to the contracting officer, or his authorized representative satisfactory evidence that the tables and racks he proposes to furnish under this document meet the applicable requirements of NSF Standard No. 2 as follows:
 - (1) A listing in the current edition of the NSF "Listing of Food Service Equipment" and display of the NSF seal on the finished table and rack, or
 - (2) A certification for the tables and racks issued by NSF under their special one-time contract evaluation/certification service, or
 - (3) A certified test report from a recognized independent testing laboratory acceptable to the contracting activity for which the tables and racks are being procured, indicating that the tables and racks have been tested and conform to NSF Standard No. 2.
 - 3.3 Material and components. Materials and components not definitely specified shall be of the quality normally used by the manufacturer for his table or rack provided the completed item complies with all provisions of this document (see 6.5).
 - 3.3.1 Stainless steel. Stainless steel shall conform to type 301, 302, or 304 of ASTM A167.
 - 3.3.2 Screws, bolts, and washers. Screws, bolts, and washers of the size and design shown on applicable drawings shall be stainless steel.
 - 3.3.3 Grade C tables. Grade C tabletop material shall conform to necessary analytical, taste and odor and cleanability requirements of NSF standards.

- 3.3.3.1 Modified rubber composition. Modified rubber composition board shall be either a styrene butadiene rubber (SBR), high styrene rubber compound or an acrylonitrile butadiene rubber and shall be buff in color. The material shall have a finish obtained by pressing a cloth sheet into the top and bottom surfaces or simulating a cloth impression without the use of a cloth sheet. If cloth is used to obtain the finish, the cloth may be left on for protection prior to use. If no cloth is left on the finished tabletops, an easily removable paper or fabric covering, adhered to both sides shall be provided. Instructions for removing the protective covering shall be provided with each tabletop.
- 3.3.3.1.1 Styrene butadiene rubber. Styrene butadiene rubber shall have a Shore D durometer hardness reading of not less than 55 nor more than 75 and shall weigh not less than 4.5 nor more than 5.0 pounds per square foot per 3/4 inch of thickness when tested as specified in 4.4.1.1.
- 3.3.3.1.2 Acrylonitrile butadiene rubber. Acrylonitrile butadiene rubber shall have a Shore D durometer hardness reading of not less than 75 nor more than 85 and shall weigh not less than 4.0 nor more than 5.0 pounds per square foot per 3/4 inch of thickness when tested as specified in 4.4.1.1.
- 3.3.3.2 Plastic. The plastic for the tabletop shall be a virgin high density ethylene copolymer material conforming to type I, class H, grade 3 of L-P-390 or type I or III B of L-P-394. Clean, unburned plastic material in the form of imperfect parts of the same composition as the virgin material, and produced in the molding or finishing operation, may be reground and mixed with the virgin material. When reground is mixed with the virgin material, the reground shall not exceed a level of 15 percent by weight of the blended mixture. The plastic tabletop shall have a Shore D durometer hardness reading of not less than 55 nor more than 75 and shall weigh not less than 1.75 nor more than 3.5 pounds per square foot per 3/4 inch of thickness when tested as specified in 4.4.1.1.
- 3.3.4 <u>Casters</u>. Casters shall conform to type II, class B, wheel diameter 5 inches, style C, with brakes as required (see 3.4) conforming to FF-C-77. Any stem mounting type may be used provided the socket adapter test for mounting are complied with. The wheel tread width shall be not less than 7/8 inches. Casters shall be NSF listed.
- 3.3.5 Adhesive. Adhesive for cementing the grade A tabletops to the frame (alternate method) on types I and II tables shall be a contact cement of a type designed for use on metallic surfaces. The contractor shall furnish a certificate of compliance stating the adhesive complies with this requirement. Adhesive shall not be used on types III and IV tables.

- 3.4 Design. Food preparation tables covered herein shall be of two basic designs. Type I tables shall be designed for attachment of an overhead pan rack and types II, III and IV shall be designed for use without a pan rack. Grade A tabletops shall be stainless steel with a square edge, rolled-rim, or marine edge design, as applicable, and grade C tabletops shall be modified rubber or plastic with a square-edge design. Table frame and legs shall be stainless steel. Tables shall be designed with an undershelf or designed to accommodate mobile ingredient bins. The type II, model 1, size 2 table shall be designed with three glass shelves attached on the tabletop. The style 1 tables shall be designed for stationary use (bullet feet) and the style 2 tables shall be designed for mobile use (casters) equipped with either round donut type or continuous strip type bumpers. All corner casters on each style 2 table shall be provided with brakes. Caster and caster mounting areas shall not show any evidence of damage, distortion, or failure when tested as specified in 4.6.4. Overhead pan racks shall be stainless steel and shall be designed for attachment to type I tables specified herein.
- 3.5 General construction. The construction of the food preparation tables and pan racks covered herein shall conform to the requirements of this document and the drawings referenced in 2.1. Material thickness specified herein and shown on the drawings are nominal and commercial mill tolerances are applicable. The height of the tables as shown on the drawing shall be the same with casters or bullet feet. Welding shall be sound and welding rod used shall be of the same chemical composition as the welded components.
- 3.5.1 Tabletops. Tabletops for grade A tables shall be fabricated of 0.0781-inch thick stainless steel specified in 3.3.1. Tabletops for grade C tables shall be modified rubber composition material specified in 3.3.3.1 or plastic material specified in 3.3.3.2. Retainers for grade C tabletops may be die formed from the parent metal. The die formed retainer shall be located to retain the tabletop. The die formed retainer shall be not less than 1/2 inch and not more than 5/8 inch high and not less than 1-1/2 inches wide. Grade A tabletops shall be joined to the table frame as specified on the applicable drawing. Top surfaces of the angles and channels that support the tabletop shall be flat within 1/64 inch. When cementing is employed for types I and II tables, the top surfaces of the angles and channels and mating surfaces of the tabletop underside shall be cleaned, the adhesive specified in 3.3.5 applied, and the table assembled in accordance with the adhesive manufacturer's recommendations. Adhesive shall be applied to the top surfaces of the angles and channels to within 1/4 inch of the band or edge, for types I and II tables. After assembly, the grade A tabletops shall be tested as specified in 4.6.1 to determine flatness within 1/8 inch and as specified in 4.6.2 to determine that tabletops are not loose. Rivets shall not be used to fasten the tabletop to the framing assembly.

- 3.5.2 Shelves. Class I tables shall be provided with an undershelf fabricated of 0.0625-inch thick stainless steel specified in 3.3.1. Shelf construction shall be as shown on Drawings 5-11-802 or 5-11-959, as applicable.
- 3.5.3 Leg gussets. Leg gussets shall be fabricated from stainless steel specified in 3.3.1 and shall be of the general configuration shown on Drawing 5-11-802.
- 3.5.4 Adjustable foot. The adjustable foot shall be a bullet shape and shall consist of a body and a threaded sleeve of the general configuration shown on Drawing 5-11-802. All exposed surfaces of the foot shall be stainless steel as specified in 3.3.1.
- 3.5.5 Pan hooks. Pan hooks for racks shall be stainless steel as specified in 3.3.1 or chrome-plated malleable iron and shall be of the size, shape, and quantity shown on Drawing 5-11-801.

3.6 Detailed construction.

3.6.1 Type I tables. The type I tables shall be constructed as shown on Drawings 5-11-802 and 5-11-933 with provisions for attachment of an overhead pan rack. The tables shall be provided with a stainless steel, modified rubber or plastic tabletop, conforming to 3.5.1, as required. Leg construction shall allow disassembly from the tabletop, and cross-bracing construction shall allow disassembly from the legs. Size 1 and size 2, grade C tabletops shall consist of not more than two and three equal sections, respectively.

3.6.2 Type II.

- 3.6.2.1 Sizes 1, 2, 4 and 5. The type II, size 1, 2, 4 and 5 tables shall be constructed with a square edge top as shown on Drawing 5-11-959. The sizes 1, 2, 4 and 5 tables shall be provided with an stainless steel top conforming to 3.5.1, and an undershelf conforming to 3.5.2. The tables shall be provided with four legs. Legs shall be provided with adjustable bullet feet conforming to 3.5.4 or casters conforming to 3.3.4, as required. Legs and shelf shall be removable.
- 3.6.2.2 <u>Model 1</u>. The model 1 table shall be provided with three glass shelves and sneeze guards. When specified (see 6.2), form 1 and form 2 sneeze guards shall be fabricated from shatterproof plexiglass.
- 3.6.2.2.1 Form 1. The form 1 display stand shall be constructed and shall be of the dimensions shown in Drawing 5-11-959, with three glass shelves and straight plate glass or plexiglass sneeze guards as applicable. The sneeze guard shall be adjustable from a closed position to an open position of 60 degrees.

- 3.6.2.2.2 Form 2. The form 2 display stand shall be constructed the same as the form 1 display stand except that the display stand shall be of the following dimensions: (a) 29-inches high (b) 19-inches wide from the top shelf to the lower shelf (c) 22-inches wide at the base. The shelf spacing shall be as follows: (a) 13-inches from the tabletop to the top of the lower shelf (b) 8-inches from shelf to shelf. The form 2 display stand shall be constructed for the following curved sneeze guards: (a) 1/4-inch curved plate glass or plexiglass, as applicable, with two 6-inch radii; (b) two die formed stainless steel channel installed on the exposed edge of the curved plate glass or plexiglass, as applicable; (c) the curved sneeze guards are adjusted to the extreme open and closed positions, the shelf opening shall be 10-1/4 and 8-1/4 inches, respectively, for the middle and top shelves.
- 3.6.2.3 Size 3. The size 3 table shall be provided with a modified rubber top conforming to 3.5.1. Under-table frame construction, legs, and cross-bracing shall be as shown on Drawing 5-11-959. The leg supports and cross-bracing shall be welded in accordance with 3.5. The table shall be provided with eight legs and adjustable bullet feet conforming to 3.5.4. Size 3, grade C tabletops shall consist of not more than four equal sections.
- * 3.6.3 Type III. The type III tables shall be constructed with a rolled-rim top as shown on Drawing 5-11-960. The tabletop shall be formed of one piece with die-formed or welded bull-nose corners. The tables shall be provided with a stainless steel tabletop conforming to 3.5.1 and shall be provided with or without a shelf, as required. Leg gussets shall be fastened to the frame assembly on the underside of the tabletop by continuous welding process. Rivets shall not be used to fasten the tabletop to the frame assembly. When a shelf is provided it shall conform to 3.5.2. Sizes 1, 3, 4, 5 and 6 tables shall be provided with four legs and size 2 tables shall be provided with six legs. Adjustable bullet feet as specified in 3.5.4 or casters as specified in 3.3.4 shall be provided as required. Cross-bracing on tables without an undershelf shall be welded as specified in 3.5. On tables with an undershelf, the shelf and legs shall be removable.
 - 3.6.4 Type IV. The type IV tables shall be constructed with a marine-edge top and undershelf as shown on Drawing 5-11-960. The tabletop shall be stainless steel as specified in 3.5.1. Leg gussets shall be fastened to the frame assembly on the underside of the tabletop by continuous welding process. Rivets shall not be used to fasten the tabletop to the frame assembly. The tables shall be provided with four legs. Legs shall be provided with adjustable bullet feet conforming to 3.5.4 or casters conforming to 3.3.4, as required. Legs and shelf shall be removable.

- 3.6.5 Racks. Racks shall be constructed as shown on Drawing 5-11-801. Metal parts shall be stainless steel specified in 3.3.1.
- 3.6.6 <u>Drawer(s)</u>. When specified (see 6.2), 48 inches, 60 inches and 72 inches long tables shall be furnished with a drawer firmly attached to the underside of the tabletop and at the center of the table. When specified (see 6.2), 96 inches long tables shall be furnished with two drawers, one to each side of the center leg, firmly attached to the underside of the tabletop. The drawer shall be fabricated from stainless steel, 20 inches W x 20 inches D x 5 inches H and have a handle or lip underneath to facilitate pull-out. The drawer shall not be furnished on 24 inches and 30 inches long tables.
- * 3.7 Assembly. When tested as specified in 4.6.3, the type I tables (including pan racks when required) and glass shelving of the model I table shall be completely assembled to determine proper fit of parts and then knocked down preparatory for packaging, and shipment. The contractor shall furnish complete assembly instructions with each type I table and rack, and glass shelving of each model I table.
 - 3.8 Finish. All surfaces of the tables and racks shall be smooth on all surfaces and edges and shall be free from discoloration or stains.
 - 3.8.1 Modified rubber. Grade C modified rubber tabletops shall have a finish obtained by pressing a cloth sheet into the top and bottom surfaces or by simulating a cloth impression without the use of a cloth sheet.
- 3.9 Identification marking. Each table and pan rack shall bear a securely affixed, corrosion-resistant metal identification plate in the location shown on the applicable drawings. The manufacturer's name, contract number, and national stock number, shall be permanently affixed to the underside of the tables. Use of "stick on" or removable labels on identification plates will not be allowed.
 - 3.10 Workmanship. All components and assemblies of the tables or racks 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. Plastic tabletops shall be free of voids, cracks, dirt and sink marks. Stainless steel tabletops shall be free of weld marks.

- 3.10.1 Metal fabrication. Metal used in the fabrication of the tables or racks 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.
- * 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 incomplete fusion. All scale and flux shall be removed from the finished weld area. Welding shall be sound, and welding rod shall be of the same chemical composition as the welded components.
- * 3.10.3 <u>Fastening devices</u>. Holes for threaded fasteners shall be accurately punched or drilled and shall have burrs removed. Threaded fasteners shall not be broken, cracked, or stripped, and shall be drawn tight. Rivets shall not be allowed.
 - 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 Classification of inspection. The inspection requirements specified herein are classified as follows:
 - a. First article inspection (see 4.3).
 - b. Quality conformance inspection (see 4.4).
 - 4.3 First article inspection. When a first article is required, it shall be examined for the defects specified in table I, dimension specified herein and on the drawings, and tested as specified in 4.6.1, 4.6.2, 4.6.3, 4.6.4 and 4.6.5, as applicable. Failure to pass any of the tests, the presence of any defect listed in table I, or any dimension not within the specified limits shall be cause for rejection of the first article.
 - 4.4 Quality conformance inspection. Unless as otherwise specified, sampling for inspection shall be performed in accordance with MIL-STD-105.

- 4.4.1 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.
- 4.4.1.1 Grade C material. The material for the grade C tabletop shall be tested for hardness in accordance with ASTM D 2240, and shall be weighed to determine conformance to 3.3.3.1.1, 3.3.3.1.2 or 3.3.3.2, as applicable. One determination for hardness and weight shall be made on each lot of material submitted for inspection. Failure of the sample to comply with the hardness and weight requirements shall be cause for rejection of the lot.
- 4.4.2 In-process examination. Examination shall be made of cementing process, when employed, to determine conformance to the requirements of 3.5.1. Whenever nonconformance is noted, correction shall be made to affected items and the process.
- 4.4.3 End item visual examination. The end item shall be examined for the defects listed in table I. The lot size shall be expressed in units of end items of one type, style, size, class, grade, model, and form only. The sample unit shall be one end item. The inspection level shall be II and the AQL, expressed in terms of defects per hundred units, shall be 2.5 for major defects and 6.5 for total (major and minor combined) defects.

TABLE I. End item visual defects

		Classif	ication
Examine	Defect	Major	Minor
Distal	Not as specified	X	
Finish	Evidence of discoloration or stains	X	
Construction and	Component missing	X	
workmanship general	Any burr, sliver, sharp edge, rough die, tool, gouge, trim or grind		
general	marks	X	
	Not constructed as specified	X	
	Not fabricated of materials specified Component split, cracked, or showing	Х	
	delamination	X	
	Any component fractured, buckled,		
	bent, dented, punctured or malformed Any component misplaced or not in	X	
		X	
	alignment Pan hooks do not slide freely	X	
	Plate glass or shatterproof plexiglass guards extend beyond edge of table	••	
	(model 1)	X	
	Plate glass or shatterproof plexiglass cracked or chipped (model 1)	X	
	Casters not provided with brakes, as specified	X	
	Drawer(s) not provided with handle		
	or lip to facilitate pull-out	X	
Dieformed retainer (when applicable)	Not located to retain tabletop	x	
Fastening devices	Missing, cracked or stripped		х
- ubteming devices	One bolt, nut, screw or washer missing	X	
	Fastener loose		Х
Welding	Missing	x	
	Not free from rust scale, paint,	**	
	grease and other foreign matter	X	
	Scale and flux deposits not removed Weld not smooth and free of cracks,	X	
	burn holes, undercuts or incomplete fusion	X	

TABLE I. End item visual defects (cont'd)

		Classif	ication
Examine	Defect	Major	Minor
Castings, molded parts, and stampings	Miscast or incomplete, not free of sand, fins, pits, sprues and blow holes	x	
Identification marking	Nameplate missing, not securely affixed, not corrosion-resistant metal, or not applied where specified	x	
	Identification plate not permanently attached to underside of table and to rack	x	
	Manufacturer's name, contract number, and national stock number not shown	X	
Assembly instructions	Missing, illegible, not complete (type I tables, pan racks, and glass		
	shelving)	X	

^{4.4.4} End item dimensional examination. The end item shall be examined for conformance to specified dimensions. Any dimension not as specified shall be classified as a defect. The lot size shall be expressed in units of end items of one type, style, size, class, grade, model and form only. The sample unit shall be one end item. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 4.0.

4.4.5 End item testing.

- 4.4.5.1 Tabletop testing (grade A only). Every grade A table shall be tested for tabletop flatness as specified in 4.6.1 and for tabletop looseness (when tabletop is attached by cementing) as specified in 4.6.2. Any test failure shall be cause for rejection of the individual table.
- 4.4.5.2 Assembly testing (type I and model 1 only). Type I tables (including pan racks when applicable) and glass shelving of model 1 tables shall be tested for assembly as specified in 4.6.3. The lot size shall be expressed in units of tables or glass shelving units as applicable. The sample unit shall be one table or one glass shelving unit as applicable. The inspection level shall be II and the AQL, expressed in terms of defects per hundred units, shall be 1.5.

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- 4.4.5.3 Obstacle and impact testing (style 2 only). One style 2 table from the production lot shall be tested as specified in 4.6.4 and 4.6.5. Any test failure shall be cause for rejection of the lot.
- * 4.4.6 Packaging inspection. An examination shall be made to determine that preservation, packing, and marking comply with the section 5 requirements. Defects shall be scored in accordance with the list below. The sample unit shall be one shipping container fully packaged with the exception that it need not be closed. Examination of closure defects listed below shall be made on shipping containers fully packaged. The lot size shall be the number of containers in the inspection lot. The inspection level shall be S-2 and the AQL, expressed in terms of defects per hundred units, shall be 2.5.

Examine	Defect		
Marking	Omitted; incorrect; illegible; of improper size, location, sequence, or method of application.		
Materials	Any component missing, damaged, or not as specified.		
Workmanship	<pre>Inadequate application of components such as: incomplete closure of container, loose strapping, improper taping, or inadequate stapling. Bulged or distorted container.</pre>		
Content	Contents per container are more or less than required.		

4.5 <u>Certificate examination</u>. Certification of compliance, certified test reports, approval labels or listing marks for codes and standards, as applicable, that are submitted as proof of conformance with the document requirements shall be examined and validated.

4.6 Methods of inspection.

4.6.1 Tabletop flatness test. The completely assembled table shall be placed on a flat surface in normal use position. A straight edge, measuring at least the distance across opposite corners, shall be placed diagonally across the tabletop and the flatness shall be checked to determine conformance with 3.5.1. The straight edge shall be placed across the opposite corners and flatness determined again. Inability of the tabletop to meet the flatness requirements shall constitute failure of the test.

- 4.6.2 Tabletop looseness test. The tabletop shall be subjected to hand pressure on various sections of the top over channels and angles and from the bottom adjacent to channels and angles to determine conformance with tightness requirements of 3.5.1. Cemented tabletops shall not be subjected to this test until the adhesive has set. Failure of the tabletop to meet the tightness requirement shall consititute failure of the test.
- 4.6.3 Assembly test. The type I tables, including pan rack, when applicable and glass shelving shall be completely assembled and examined to determine proper fit of parts as required by 3.7. Inability to meet the proper fit requirements shall constitute failure of the test.
- 4.6.4 Obstacle test. The style 2 table shall be loaded with an evenly distrubuted load of 10 pounds per square foot. The loaded table shall pass over a 1/4 inch obstacle ten times at a minimum speed of 2 miles per hour to determine conformance with 3.4. Inability of the table to pass over the obstacle without damage, distortion, or failure of the caster(s) or caster mounting(s) shall constitute failure of the test.
- 4.6.5 Impact test. The table shall be uniformly loaded with 10 pounds per square foot of table surface. The loaded table shall be propelled against a vertical rigid wall at a minimum speed of 2 miles per hour as follows: (a) perpendicularly to the wall so that each table end impacts the wall five times (b) at an angle of 30 degrees between the long edge of the table and the wall so that each corner impacts the wall five times. Any nonconformance 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 Disassembly. Tables and racks shall be disassembled as specified herein.
- 5.1.1.1.1 Tables. Casters shall be disassembled from the legs. Tables that do not have welded cross bracing shall have the legs removed from the tabletop. For type I tables the leg braces shall be disassembled from the legs. For type II, model I table, the glass components shall be removed from the table.

- 5.1.1.1.2 Racks. The two end supports shall be disassembled from the rack. The rack collars shall be left in place on the lower rack and the pipe caps reinstalled on the end supports. The upper rack assembly shall be separated from the lower rack by disassembling the rack braces from the lower rack. The rack braces shall then be swiveled upward so as to be in the same plane as the upper rack assembly.
- 5.1.1.2 Preservative application. All exposed, uncoated ferrous metal surfaces of tables and racks, except stainless steel surfaces, shall be cleaned process C-1, thoroughly dried and coated with type P-6 preservative of MIL-P-116. The casters shall be lubricated to capacity with the manufacturer's recommended lubricant containing a rust inhibitor.

5.1.1.3 Unit packing.

- 5.1.1.3.1 Tables. Leg attaching hardware and bolt hole covers shall be placed in a cotton cloth drawstring bag and secured to the leg brace. The modified rubber tabletop for grade C tables shall be wrapped in minimum 60-pound basis weight (24 by 36 500) kraft paper, replaced in position and secured to the table with filament-reinforced pressure-sensitive tape. The casters shall be unit packed in a snug-fitting shallow box, constructed to conform to style RSC, type CF (variety SW) or type SF, class domestic of PPP-B-636. Each fiberboard box shall be closed in accordance with method II as specified in the appendix of PPP-B-636. Glass components removed from the table shall be unit packed on edge in a cleated plywood or nailed wood shipping container conforming to overseas type, style A, B, I or J of PPP-B-601 or class 2, style 2 or 4 of PPP-B-621. Each wood box shall be closed in accordance with the appendix of the applicable box specifications. Cushioning material or fiberboard inserts shall be used to prevent damage to glass while in transit.
- 5.1.1.3.2 Racks. The pan hooks on the upper and lower racks shall be grouped together as far as practical and secured from movement with wire, cotton cord, or twine.
- 5.1.1.3.3 Assembly instructions. Assembly instructions shall be preserved in accordance with Method IC-1 of MIL-P-116.
- 5.1.2 Commercial packaging. Each table and rack shall be preserved in accordance with ASTM D 3951.
- 5.2 Packing . Packing shall be level A, B or Commercial as specified (see 6.2).
 - 5.2.1 Level A packing.
 - 5.2.1.1 Tables.

- 5.2.1.1.1 Tables without welded cross bracing. Each table, without welded cross-bracing, preserved as specified in 5.1, shall be packed in a shipping container conforming to type II, style A of MIL-C-52950. The bottom of each container shall be fully sheathed with a pad of triple-wall fiberboard conforming to type CF, class weather-resistant, variety SW of PPP-F-320. Each shipping container shall be provided with skids as specified in 5.2.1.1.1. The components shall be placed in the container with the tabletop in an inverted position on the pad, in the bottom of the container; the shelf, resting on the underside of the tabletop, and legs, braces, casters, and assembly instructions in an unused portion of the container. Plate glass or shatterproof plexiglass components of model 1 tables shall be packed within the shipping container in such a manner as to prevent movement or damage while in transit. Contents of each shipping container shall be anchored and waterproofed with a shroud and each shipping container closed and strapped in accordance with the appendix of MIL-C-52950.
- 5.2.1.1.1.1 Skids. Each container shall be provided with nominal 3- by 4-inch skids laid flat, positioned parallel to the ends and extending the full exterior width of the container. Skids shall be placed under each bottom crossmember of the crate. The ends of the skids shall be beveled one half the thickness at a 45-degree angle. Skids shall be secured by nailing through the bottom crossmembers and skids with 2-inch long, type II, style 18 pallet nails conforming to FF-N-105. Nails fastening the skids shall be arranged in two rows in a staggered pattern, with spacing between the nails in each row to be not more than 6 inches. Each row of nails shall be approximately 1/2-inch in from the edge of the skid. The nailing pattern shall begin and end approximately 1-1/2 inches in from the ends of each skid. Strapping shall be positioned alongside the skids.
- 5.2.1.1.2 Type III, sizes 1 and 2, class 2. Each type III, size 1 or 2, class 2 table, preserved as specified in 5.1, shall be packed upright in a shipping container conforming to type IV of MIL-C-52950 with the dimensional limitations waived. The fiberboard box containing the casters shall be completely wrapped with waterproof barrier material conforming to PPP-B-1055 and all joints of the wrap sealed with water-resistant adhesive conforming to MMM-A-260. The wrapped box shall then be positioned in an unused portion of the crate. The contents of each crate shall be anchored and waterproofed with a shroud and each shipping container closed and strapped in accordance with the appendix of MIL-C-52950.
- 5.2.1.1.3 Type II, size 3. Each type II size 3 table, preserved as specified in 5.1, shall be packed as specified in 5.2.1.1.2, except that the crate shall conform to type V, style A of MIL-C-52950.

5.2.1.2 Racks. Each rack, preserved as specified in 5.1, shall be packed in the most compact manner in a shipping container conforming to type II, style A of MIL-C-52950. The contents of each crate shall be immobilized with lumber blocking and bracing. The blocking and bracing shall not depend on end grain nailing alone, but supplemental supporting cleats shall be provided to reinforce and prevent splitting of the blocking and bracing. Closure, water-proofing, and strapping shall be in accordance with the appendix of MIL-C-52950.

5.2.2 Level B packing.

- 5.2.2.1 Tables. Each table, preserved as specified in 5.1, shall be packed as specified in 5.2.1.1, except that the waterproofing shall not be required and the fiberboard pad specified in 5.2.1.1.1 shall conform to type CF, class domestic, variety SW of PPP-F-320. In addition, shipping containers may be used that conform to class 1 of PPP-B-640 except that the weight of contents shall not exceed 275 pounds and for type I tables the containers shall be style F.
- 5.2.2.2 Racks. Each rack preserved as specified in 5.1, shall be packed as specified in 5.2.1.2 except that the waterproofing shall not be required. In addition, shipping containers may be used that conform to class 1, style A with No. 2 end or style F of PPP-B-640.
- * 5.2.3 Commercial packing. Tables and racks, preserved as specified in 5.1 shall be packed in accordance with ASTM D 3951.
 - 5.3 Marking. In addition to any special marking required by the contract, unit packs and shipping containers shall be marked in accordance with MIL-STD-129 or ASTM D 3951, as applicable. Boxes containing glass components shall be marked with the word "GLASS".

6. NOTES

- 6.1 Intended use. Tables are intended for use in the preparation of foods in subsistence buildings, dining halls, galleys, pastry shops, and meat plants in temporary or permanent installations. Pan racks are the attachment to type I tables and are intended for holding pans and other kitchen utensils.
 - 6.2 Ordering data. Acquisition documents should specify the following:
 - a. Title, number, and date of this document.
 - b. Type, size, grade, class, model, form and style of table required (see 1.2).
 - c. Size of rack required (see 1.2).
 - (1) When drawer is required on 48 inches, 60 inches and 72 inches long tables (see 3.6.6).
 - (2) When drawers are required on 96 inches long tables (see 3.6.6).

- (d) When a first article is required (see 3.1, 4.3 and 6.3).
- (e) When shatterproof plexiglass sneeze guards are required (see 3.6.2.2).
- (f) Selection of applicable levels of preservation, and packing (see 5.1 and 5.2).
- 6.3 First article. When a first article is required, it shall be inspected and approved under the appropriate provisions of DAR 7-104.55. The first article should be a preproduction sample. The first article should consist of one unit. The contracting officer should include specific instructions in all procurement instruments regarding arrangements for inspection and approval of the first article.
- 6.4 Contract data requirements. Any data items to be delivered under any contract for items covered by this document should be specifically called for in the contract in accordance with the applicable regulations of the contracting activity.
- 6.5 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).
- 6.6 Changes from previous issue. The margins of this document are marked with an asterisk to indicate where changes (additions, modifications, corrections, deletions) from the previous issue were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous issue.

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