



## Standard Specification for Tables, Mess, Marine, Steel<sup>1</sup>

This standard is issued under the fixed designation F824; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reapproval.

### 1. Scope

1.1 This specification covers the construction of round, square, and rectangular marine mess tables with or without adjustable lee rails for use in crew, officer, and passenger dining areas aboard ship.

1.2 The values stated in inch-pound units are to be regarded as standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only and are not considered standard.

1.3 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

### 2. Referenced Documents

#### 2.1 ASTM Standards:<sup>2</sup>

[A53/A53M Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless](#)

[A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip \(Withdrawn 2014\)<sup>3</sup>](#)

[A240/A240M Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications](#)

[A366/A366M/A1008/A1008M Specification for Commercial Steel \(CS\) Sheet, Carbon, \(0.15 Maximum Percent\) Cold-Rolled Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Required Hardness, Solution Hardened, and Bake Hardenable \(Withdrawn 2000\)](#)

[A500 Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes](#)

[A501 Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing](#)

[A567/A567M/A1011/A1011M Specification for Castings, Iron, Cobalt, and Nickel-Base Alloy, for High-Strength at Elevated Temperatures Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength \(Withdrawn 1987\)](#)

[A582/A582M Specification for Free-Machining Stainless Steel Bars](#)

[B221 Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes](#)

[D907 Terminology of Adhesives](#)

#### 2.2 NEMA Specification:<sup>4</sup>

[NEMA LD-3 High Pressure Decorative Laminates](#)

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.03 on Outfitting and Deck Machinery.

Current edition approved Jan. 1, 2017/April 1, 2022. Published January 2017/April 2022. Originally approved 1983. Last previous edition approved in 2010/2017 as F824 – 93 (2010) (2017). DOI: 10.1520/F0824-93R17.10.1520/F0824-22.

<sup>2</sup> For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For *Annual Book of ASTM Standards* volume information, refer to the standard's Document Summary page on the ASTM website.

<sup>3</sup> The last approved version of this historical standard is referenced on www.astm.org.

<sup>4</sup> Available from National Electrical Manufacturers Association (NEMA), 1300 N. 17th St., Suite 900, Arlington, VA 22209, http://www.nema.org.

2.3 *AISC Manual*:<sup>5</sup>

**AISC Wire and Sheet Metal Gauges Equivalent Thickness in Decimals of an Inch, U.S. Standard Gauge (USSG) for Uncoated Hot and Cold Rolled Sheets**

### 3. Terminology

#### 3.1 *Definitions of Terms Specific to This Standard:*

3.1.1 *mess table*—a dining table for use in crew, officer, or passenger dining areas, consisting of a horizontal top assembly and one or more supporting pedestals.

3.1.2 *table top*—the assembled horizontal surface of the mess table including the substrate, top covering, lee rails, and edge binder, or all of the preceding.

3.1.2.1 *substrate*—the structural core of the top assembly.

3.1.2.2 *top covering*—the decorative melamine laminate attached to the top surface of the substrate.

3.1.2.3 *lee rails:*

(1) *fixed lee rail*—a trim piece at the edge of the table top that projects above the upper surface of the table top to retain tableware and act as an edge binder.

(2) *adjustable lee rail*—a trim piece at the edge of the table top that can be raised above the upper surface of the table top to retain tableware and can be retracted when not needed.

3.1.2.4 *edge binder*—the finishing strips of metal applied to the edge of the table top.

3.1.2.5 *cleanout*—an interruption in the raised portion of the lee rail to facilitate cleaning of table top.

3.1.2.6 *pedestal*—a round or square tubular column, or stanchion, that supports the table top. Each pedestal has a table-support plate at its upper end and provisions at the bottom for attaching to the structural deck.

(1) *table support plate*—a flanged, dished plate or flat plate with gussets welded to top of pedestal for supporting and attaching to the table top.

3.1.2.7 *deck socket*—a metal sleeve or adaptor welded to the structural deck, over which the table pedestal is installed and attached.

### 4. Classification

#### 4.1 *Types:*

4.1.1 *Type I*—Round mess table with single pedestal.

4.1.2 *Type II*—Square mess table with single pedestal.

4.1.3 *Type III*—Rectangular mess table.

4.1.3.1 *Grade 1*—Rectangular table with single pedestal.

4.1.3.2 *Grade 2*—Rectangular table with two pedestals.

#### 4.2 *Classes:*

4.2.1 *Class A*—Table with fixed lee rails.

4.2.2 *Class B*—Table with adjustable lee rails.

### 5. Ordering Information

5.1 Orders for materials under this specification shall include the following:

5.1.1 Quantity and size of each type, grade, and class.

---

<sup>5</sup> Available from American Institute of Steel Construction (AISC), 130 E. Randolph St., Suite 2000, Chicago, IL 60601-6219, <http://www.aisc.org>.

### 5.1.2 *Paint:*

5.1.2.1 *Color*—The purchaser shall pick from manufacturer’s samples or submit a sample chip of color desired.

5.1.2.2 Manufacturer’s standard baked enamel will be furnished unless otherwise required and indicated by the purchaser.

5.1.3 Color or pattern of melamine laminate top covering.

5.1.4 If pedestal deck sockets are required, they shall be specified in the ordering document; otherwise, the table manufacturer shall have the option of supplying pedestals without sockets but with 2 in. (51 mm) of scribing for trimming and welding to the deck on the ship.

5.1.5 If the total weight of the table assembly is required, it shall be requested by the purchaser.

## 6. Materials and Manufacture

6.1 For typical design, see Fig. 1, Fig. 2, and Fig. 3.

### 6.2 *Tops:*

6.2.1 Tops shall be steel construction with a decorative melamine laminate top cover. The minimum thickness for the top plate, stiffener, and edge channels shall be 16 USSG (0.0598 in. or 1.50 mm) and made from cold-rolled steel sheet of commercial quality in accordance with Specification ~~A366/A366M~~A1008/A1008M.

6.2.2 The top cover shall be a high-pressure melamine laminate in accordance with NEMA Specification LD-3 with a maximum thickness of 1/16 in. (2 mm) securely bonded to the top plate.

6.2.3 *Lee Rails, Fixed and Adjustable*, shall be anodized aluminum alloy 6063-T1 in accordance with Specification B221. Studs for attaching to table top shall be Type 300 stainless steel in accordance with Specification A582/A582M.

6.2.4 *Edge Binder for Tables with Adjustable Lee Rails*, shall be flush with top of table and may be either anodized aluminum alloy 6063-T1 in accordance with Specification B221 or polished Type 300 stainless steel in accordance with Specification A240/A240M, at the option of table manufacturer.

6.2.5 *Cleanouts*, shall be provided as indicated in Figs. 1-3.

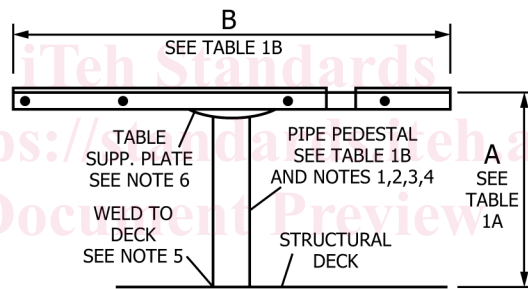
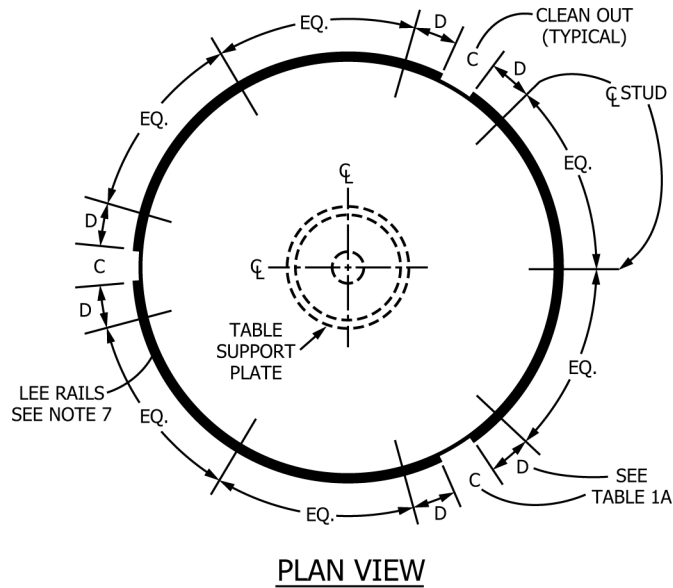
### 6.3 *Pedestals:*

6.3.1 Pedestal quantity and sizes shall be as specified in Tables 1-6 as illustrated in Figs. 1-3. Commercially acceptable tolerances as specified in Specifications A53/A53M, A500, or A501 shall apply to all pedestal dimensions. Pedestals shall be of either welded or seamless construction. The choice of round or square pedestal shall be at the option of the table manufacturer. Round pedestals shall be black steel pipe in accordance with Specification A53/A53M. Square pedestals shall be structural-steel tubing in accordance with Specifications A500 or A501.

6.3.2 *Table Support Plate*, may be either a flanged dished plate or a flat plate with gussets. If a flat plate and gussets, it shall be of hot-rolled, commercial-quality steel pickled and oiled in accordance with Specification ~~A567/A567M~~A1011/A1011M and with a minimum thickness of ~~7 USSG (0.1793 in. or 5 mm)~~0.167 in. (4.24 mm). For dished plate, it shall be cold-rolled steel sheet of commercial quality in accordance with Specification ~~A366/A366M~~A1008/A1008M and with a minimum thickness of ~~14 USSG (0.0747 in. or 2 mm)~~0.067 in. (1.70 mm).

6.3.3 Pedestals may be attached to the deck by welding or by attaching to deck socket. Unless specified in the ordering document, the method used is at the option of the table manufacturer. If round pedestals and sleeves are used, provisions must be made to ensure that the table will not turn.

### 6.4 *Joining:*



ASTM F824-22

<https://standards.iteh.ai/catalog/standards/sist/c4b-407d-b1fd-6d39b1bb90b6/astm-f824-22>

NOTE 1—Commercially acceptable tolerances, as specified in applicable ASTM specifications listed in Notes 3 and 4, shall apply to all pedestal dimensions listed.

NOTE 2—Unless otherwise specified in the ordering documents, pedestal sizes shall be chosen from Table 2, Table 4, and Table 6 shown with Figs. 1-3, respectively. The choice of round or square pedestals shall be at the option of the table manufacturer.

NOTE 3—Round pedestals shall be black steel pipe in accordance with Specification A53/A53M.

NOTE 4—Square pedestals shall be hot-formed structural steel tubes in accordance with Specification A501.

NOTE 5—In Figs. 1-3, pedestal is shown welded directly to the structural deck. Unless otherwise specified in the ordering documents, the table manufacturer shall have the option of providing pedestals for welding to deck as shown or providing deck sleeves for attaching pedestal to deck and pedestal.

NOTE 6—The table support plate, welded to the top of the pedestal, may be either a flanged, dished plate or a plate with gussets at the option of the table manufacturer.

NOTE 7—Lee rails, fixed and adjustable, shall be anodized aluminum alloy 6063-T1 in accordance with Specification B221. Studs for attaching to table top shall be Type 300 stainless steel in accordance with Specification A582/A582M.

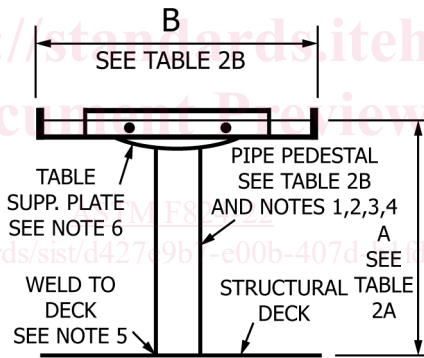
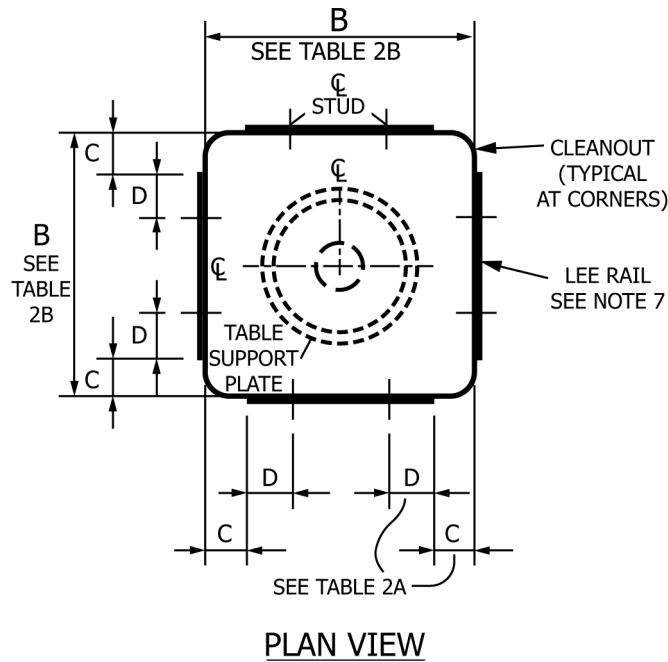
**FIG. 1 Round Mess Table (Type I)**

6.4.1 *Metal Components*, shall be joined by welding or gluing with a structural adhesive as defined in Terminology D907.

6.4.2 Joining shall be adequate to prevent racking during manufacture or service.

6.4.3 *Spotwelds*, shall be spaced approximately 3 in. (76 mm) on centers.

6.4.4 *Visible Spotwelds*, higher than the general surface of the adjacent metal, shall be ground smooth.



NOTE 1—See Notes 1 through 7 under Fig. 1.

FIG. 2 Square Mess Table (Type II)

6.4.5 *Visible Spotweld Depressions*, shall be spot filled and ground flush.

## 7. Performance Requirements

7.1 Tops for mess tables shall be capable of supporting a load of 400 lb (181 kg) uniformly distributed over an area of 2 ft<sup>2</sup> (0.12 m<sup>2</sup>) and placed at any location on the top. Load shall remain on top for a minimum of 3 min, and there shall be no indication of permanent set after removal of load.

## 8. Dimensions

8.1 For dimensions of tables and pedestals, see Figs. 1-3 and Tables 1-6.