



## Standard Specification for Doors, Furniture, Marine<sup>1</sup>

This standard is issued under the fixed designation F 782; 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 reappraisal. A superscript epsilon ( $\epsilon$ ) indicates an editorial change since the last revision or reappraisal.

*This standard has been approved for use by agencies of the Department of Defense. Consult the DoD Index of Specifications and Standards for the specific year of issue which has been adopted by the Department of Defense.*

### 1. Scope

1.1 This specification covers the construction of furniture doors for use where invoked by other marine furniture specifications.

1.2 This specification applies to all furniture doors for marine furniture, in items requiring hinged doors.

1.3 Values stated in inch-pound units are to be regarded as the standard. The metric equivalents, given in parentheses, are for information only.

### 2. Referenced Documents

#### 2.1 ASTM Standards:

A 240 Specification for Heat-Resisting Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels<sup>2</sup>

A 366/A 366M Specification for Steel, Sheet, Carbon, Cold-Rolled, Commercial Quality<sup>2</sup>

A 582 Specification for Free-Machining Stainless and Heat-Resisting Steel Bars, Hot-Rolled or Cold-Finished<sup>3</sup>

B 209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate<sup>4</sup>

B 221 Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes, and Tubes<sup>4</sup>

C 1036 Specification for Flat Glass<sup>5</sup>

D 907 Terminology of Adhesives<sup>6</sup>

#### 2.2 American Institute of Steel Construction Manual:<sup>7</sup>

AISC Wire and Sheet Metal Gages—Equivalent Thickness in Decimals of an Inch, U.S. Standard Gage (USSG) for Uncoated Hot and Cold-Rolled Sheets

#### 2.3 Federal Specifications:<sup>8</sup>

DD-G-1403 Glass, Plate (Float), Sheet Figured, and Spandrel (Heat Strengthened and Fully Tempered)

<sup>1</sup> This specification is under the jurisdiction of ASTM Committee F-25 on Shipbuilding and is the direct responsibility of Subcommittee F25.03 on Outfitting. Current edition approved Feb. 15, 1995. Published April 1995. Originally published as F 782 – 82. Last previous revision F 782 – 94.

<sup>2</sup> Annual Book of ASTM Standards, Vol 01.03.

<sup>3</sup> Annual Book of ASTM Standards, Vol 01.05.

<sup>4</sup> Annual Book of ASTM Standards, Vol 02.02.

<sup>5</sup> Annual Book of ASTM Standards, Vol 15.02.

<sup>6</sup> Annual Book of ASTM Standards, Vol 15.06.

<sup>7</sup> Available from the American Institute of Steel Construction, 400 N. Michigan Ave., Chicago, IL 60611.

<sup>8</sup> Available from Standardization Documents Order Desk, Bldg. 4 Section D, 700 Robbins Ave., Philadelphia, PA 19111-5094, Attn: NPODS.

LP-391 Plastic Sheets, Rods and Tubing, Rigid Cast, Methacrylate (Multiapplication)

QQ-C-320 Chromium Plating (Electrodeposited)

QQ-Z-325 Zinc Coating, Electrodeposited

2.4 American National Standard Institute Standards:<sup>9</sup>

ANSI Z97.1-1975 Safety Performance Specifications and Methods of Test for Safety Glazing Material Used in Buildings

### 3. Terminology

#### 3.1 Descriptions of Terms Specific to This Standard:

3.1.1 *flush doors*—metal doors with a smooth surface on the exterior face.

3.1.2 *hinged door*—door equipped with hinges that permit it to swing about the vertical hinge axis, either right hand or left hand.

3.1.2.1 *right-hand door*—door with hinges on the right side when viewed from the exterior of the furniture item containing the door.

3.1.2.2 *left-hand door*—door with hinges on the left side when viewed from the exterior of the furniture item containing the door.

3.1.3 *panel doors*—doors with metal stiles and rails that support a panel insert of transparent safety glazing or expanded aluminum.

3.1.3.1 *stiles*—the vertical members in the frame of a panel door that support the central panel.

3.1.3.2 *rails*—the horizontal members in the frame of a panel door that support the central panel.

### 4. Classification

4.1 Doors shall be of the following types as required by the specifications for the item of furniture in which they are installed and as indicated in ordering documents. See Fig. 1 for details.

4.1.1 *Type I*—Flush hinged door.

4.1.2 *Type II*—Panel hinged door.

### 5. Ordering Information

5.1 Doors are included as part of the orders for items of furniture requiring doors. To describe adequately the door or

<sup>9</sup> Available from American National Standards Institute, 11 W. 42nd St., 13th Floor, New York, NY 10036.

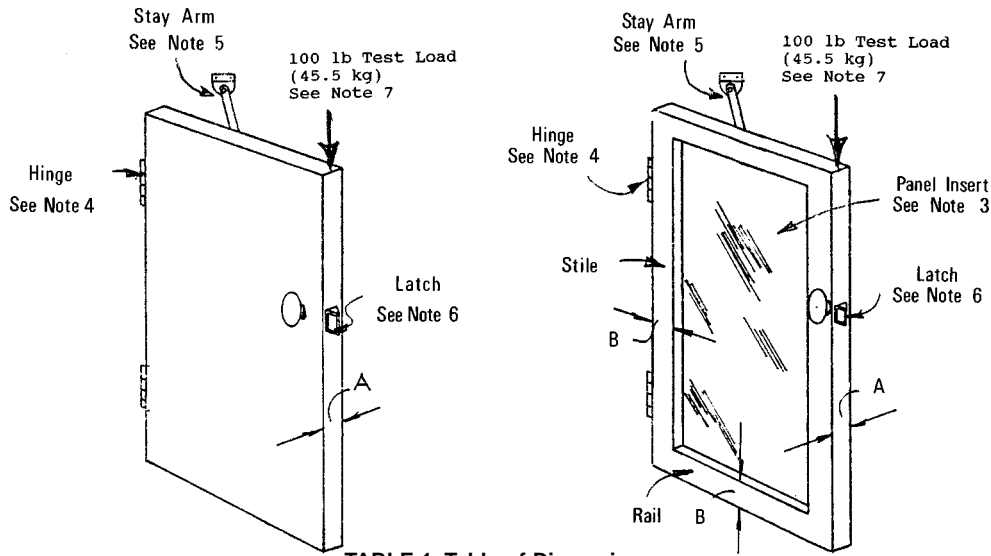


TABLE 1 Table of Dimensions

Designation	Dimensions	
	in.	mm
Door thickness	A	1 max 25.4 max
Width of stile or height of rail	B	3 max 76.2 max

NOTE 1—Panels of Type I (flush) doors shall be cold-rolled sheet steel, commercial quality, furniture grade in accordance with Specification 366/A 366M, 18 USSG (0.0478 in. or 1.21 mm). Stiffeners shall be applied to front and back as required to prevent buckling or oil-canning.

NOTE 2—At the option of the furniture manufacturer the stiles and rails for Type II (panel) door, may be either 18 USSG (0.0478 in. or 1.21 mm) cold-rolled steel, commercial quality, furniture grade in accordance with Specification A 366/A 366M or Type 6063-T6 extruded aluminum in accordance with Specification B 221 or 0.064-in. (1.63-mm) thick Type 5052-H32 aluminum alloy sheet in accordance with Specification B 209.

NOTE 3—Panel inserts for Type II (panel) doors shall be Type 3003-H14 anodized aluminum, 0.081 in. (2.06 mm) thick before expanding and of the Festoon or other approved pattern. Material shall be in accordance with Specification B 209 and the anodizing shall be done after metal is expanded. Alternative safety glazing can be furnished if specified in ordering documents. See 6.11.2.1 for description of these alternatives.

NOTE 4—Butt hinges are shown in Fig. 1 and shall be furnished in accordance with 6.8. Type 300 stainless steel pivot or hinges of adequate strength may be used in place of butt hinges.

NOTE 5—Stay arms shall be provided and shall both prevent door from opening more than 90° and be capable of retaining door in 90° open position.

NOTE 6—Doors shall be equipped with latches. See 6.7.1 and 6.7.2 for description of alternative latches.

NOTE 7—Doors shall be capable of resisting vertical load applied at latch edge. See 7.1 for detail of test.

NOTE 8—Doors shall be comply with requirements of tilt test. See 7.2 for details of test.

FIG. 1 Furniture Doors

doors required, these orders shall include, as necessary, the following information:

5.1.1 Type.

5.1.2 Size, see Section 8.

5.1.3 Paint:

5.1.3.1 Color—Doors shall be painted to match the furniture item in which they are installed.

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

5.1.4 For single-hinged doors, indicate hand if not obvious or if a specific hand is required.

5.1.5 Material for Type II (panel) doors may be either steel or aluminum. Material selected shall be the option of the furniture purchaser.

6. Materials and Manufacture

6.1 For typical design, see Fig. 1.

6.2 Sheet metal shall be cold-rolled steel, commercial qual-

ity, furniture grade in accordance with Specification A 366/A 366M.

6.3 Aluminum extrusions shall be Type 6063-T6 aluminum alloy in accordance with Specification B 221. Aluminum sheet shall be Type 5052-H32 aluminum alloy in accordance with Specification B 209.

6.4 Joining of metal parts:

6.4.1 Metal components shall be joined by welding or gluing with a structural adhesive as defined in Terminology D 907.

6.4.2 Joining shall be adequate to prevent racking during handling.

6.4.3 Spotwelds shall be spaced approximately 3 in. (76.2 mm) on centers.

6.4.4 Visible spotwelds on exterior face of door higher than the general surface of the metal shall be ground flush.

6.4.5 Visible spotweld depressions shall be spot filled and sanded flush.