

Standard Specification for Construction of Fire and Foam Station Cabinets¹

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1. Scope

1.1 This specification provides design and construction criteria for double and single fire and foam station cabinets. See Fig. 1 and Fig. 2. Valves, hose, and fittings are not included.

1.2 Optional back and legs may be provided.

1.3 The values stated in inch-pound units are to be regarded as the standard. The values in parentheses are for information only.

2. Referenced Documents

2.1 ASTM Standards:

- A 36/A 36M Specification for Structural Steel²
- A 53 Specification for Pipe, Steel, Black and Hot Dipped, Zinc Coated Welded and Seamless³
- A 167 Specification for Stainless and Heat-Resisting Chromium Nickel Steel Plate, Sheet and Strip⁴
- A 312/A 312M Specification for Seamless and Welded Austenitic Stainless Steel Pipe³
- A 569/A 569M Specification for Steel, Carbon (0.15 Maximum, Percent), Hot-Rolled Sheet and Strip, Commercial Quality⁴
- B 209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate⁵
- B 221 Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Shapes and Tubes⁵
- F 593 Specification for Stainless Steel Bolts, Hex Cap Screws and Studs⁶
- F 594 Specification for Stainless Steel Nuts⁶
- F 783 Specification for Staple, Handgrab, Handle, and Stir-rup Rung⁷
- 2.2 *American National Standards:*⁸
 - ANSI B18.21.1 Lock Washer

¹ This specification is under the jurisdiction of ASTM Committee F25 on Ships and Marine Technology and is the direct responsibility of Subcommittee F25.11 on Machinery and Piping Systems.

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² *Annual Book of ASTM Standards*, Vol 01.04.

³ *Annual Book of ASTM Standards*, Vol 01.01.

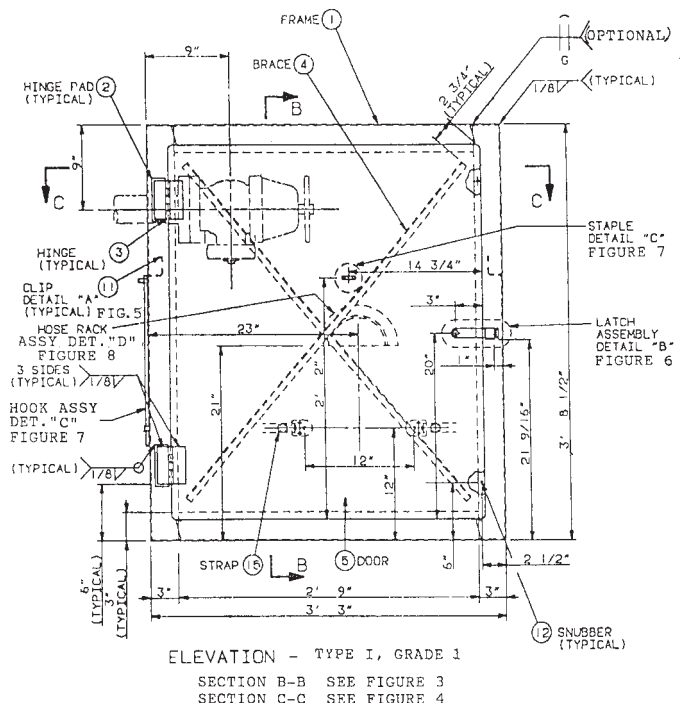
⁴ *Annual Book of ASTM Standards*, Vol 01.03.

⁵ *Annual Book of ASTM Standards*, Vol 02.02.

⁶ *Annual Book of ASTM Standards*, Vol 01.08.

⁷ *Annual Book of ASTM Standards*, Vol 01.07.

⁸ Available from American National Standards Institute (ANSI), 25 W. 43rd St., 4th Floor, New York, NY 10036.



NOTE 1—1 in. = 25.4 mm.

FIG. 1 Fire and Foam Cabinet—Type I

ANSI B18.22.1 Plain Washer

2.3 Other Standards:

- American Bureau of Shipping Rules for Building and Classing of Steel Vessels⁹
- American Welding Society Publication, AWS D 1.1 Structural Welding Code¹⁰

3. Classification

3.1 *Type I, Single Cabinet* (see Fig. 1 and Figs. 3-9):

3.1.1 *Grade 1*—Right-hand door active leaf.

3.1.1.1 *Class A, Mild Steel*—Specification A 36/A 36M.

3.1.1.2 *Class B, Stainless Steel*—Specification A 167.

3.1.1.3 *Class C, Aluminum*—Specification B 209.

⁹ Available from American Bureau of Shipping (ABS), ABS Plaza, 16855 Northchase Dr., Houston, TX 77060.

¹⁰ Available from The American Welding Society (AWS), 550 NW LeJeune Rd., Miami, FL 33126.

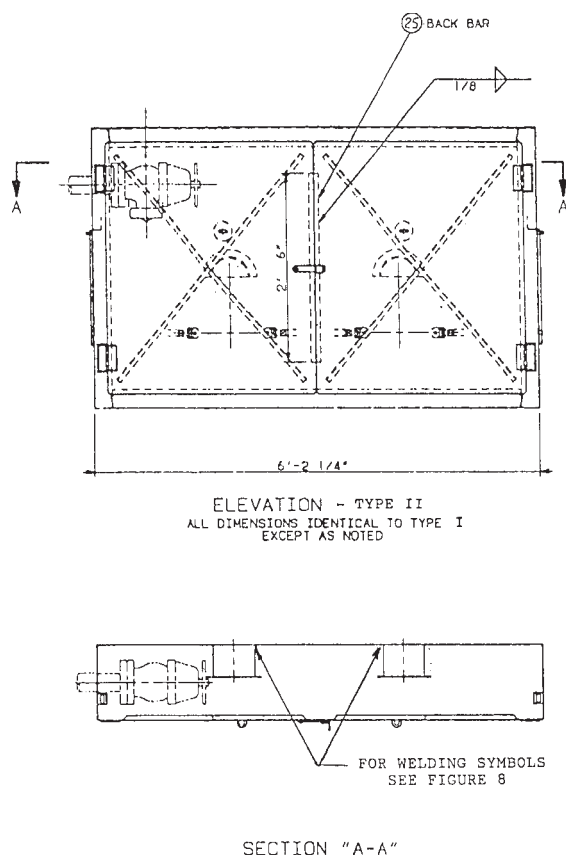


FIG. 2 Fire and Foam Cabinet—Type II

3.1.2 Grade 2—Left-hand door.

3.1.2.1 Class A, Mild Steel—Specification A 36/A 36M.

3.1.2.2 Class B, Stainless Steel—Specification A 167.

3.1.2.3 Class C, Aluminum—Specification B 209.

3.2 Type II, Double Cabinet (see Fig. 2 and Fig. 8):

3.2.1 Grade 1—Right-hand doors active leaf.

3.2.1.1 Class A, Mild Steel—Specification A 36/A 36M.

3.2.1.2 Class B, Stainless Steel—Specification A 167.

3.2.1.3 Class C, Aluminum—Specification B 209.

4. Ordering Information

4.1 Fire and foam cabinets ordered in accordance with this specification shall include the following:

- 4.1.1 ASTM title, designation, and year of issue,
- 4.1.2 Quantity (number of cabinets),
- 4.1.3 Type, grade, and class, and
- 4.1.4 Optional features.

5. Materials and Manufacture

5.1 Materials:

5.1.1 See Table 1.

5.1.2 Class materials.

5.1.2.1 All materials for Class A cabinets shall meet the requirements of Specifications A 53 and A 36/A 36M or Specification A 569/A 569M, except as specified in Table 1.

5.1.2.2 All materials for Class B cabinets shall meet the requirements of Specifications A 167 and A 312/A 312M, except as specified in Table 1.

TABLE 1 Parts List

Item Number ^A	Description ^B
1 Frame	plate, 12 gage
2 Hinge pad	flatbar, 1½ in. by 4½ in. by 12 gage
3 Hinge	undrilled butt, 4 in. long by 2 in. wide, commercial stainless steel
4 Brace	angle, ¾ by ¾ by ⅝ in.
5 Door	plate, 12 gage
6 Staple	round bar, ⅝-in. dimensions in accordance with Specification F 783
7 Hook	round bar, ¼ in.
8 Latch	flat bar, ⅜ by 1 in.
9 Keeper	flat bar, ⅜ by 1 in.
10 Rivet	button monel or aluminum, ¼ in.
11 Clip	wrench/nozzle, plate 12 gage
12 Snubber	rubber, commercial
13 Retainer	plate, 12 gage
14 Saddle	pipe 6 NPS Schedule 40, Specification A 53
15 Strap	hose securing, quick disconnect, commercial
16 Clip	hook securing, commercial, Specification A 167
17 Washer	TFE-fluorocarbon
Options	
18 Back	plate, ⅜ in.
19 Leg	angle, 4 by 3 by ⅝ in., Specification A 36/A 36M
20 Brace	angle, 4 by 3 by ⅝ in., Specification A 36/A 36M
21 Bolt	hex head, ⅜—16 UNC—2A by 1¼-in. long, stainless steel Type 316, Specification F 593
22 Washer	flat, stainless steel Type 316 for ⅜-in. diameter bolt, ANSI B18.22.1, Type B
23 Nut	heavy hex ⅜—16 UNC—2B, stainless steel Type 316, Specification F 594
24 Washer	lock, stainless steel Type 316 for ⅜-in. diameter bolt, ANSI B18.21.1, Regular
25 Back bar	Type II Double Cabinet Only flat bar, 1½ in. by 30 in. by 12 gage

^A Items 18 to 24 (inclusive) are optional.^B 1 in. = 25.4 mm.

5.1.2.3 All materials for Class C cabinets shall meet the requirements of Specifications B 209 and B 221 except as specified in Table 1.

5.2 Manufacture:

5.2.1 Welding shall be in accordance with the American Bureau of Shipping Rules for Building and Classing of Vessels or American Welding Society Structural Welding Code AWS D1.1.

5.2.2 Punchout shall have a 3-in. (approximately 76-mm) diameter hole with three evenly spaced ⅛-in. (approximately 1.5-mm) tabs for both sides of cabinet (see Fig. 3).

6. Workmanship, Finish, and Appearance

6.1 Fire and foam cabinets shall be free of weld spatter, burrs, and sharp corners, rough edges, and other defects which might be hazardous to personnel and equipment.

6.2 Surface Requirements:

6.2.1 Class A Cabinets—Coat with 1.0-mil dry film thickness, inorganic zinc silicate, including options.

6.2.2 Class B Cabinets—Uncoated. Optional legs coated with 1.0-mil dry film thickness, inorganic zinc silicate.

6.2.3 Class C Cabinets—Uncoated.

7. Packaging and Package Marking

7.1 Loose fasteners and hardware shall be packaged and securely attached inside each cabinet.

7.2 Shipping—Each cabinet shall bear a weathertight tag showing the purchase order number, ASTM standard designation, type, and name of manufacturer.

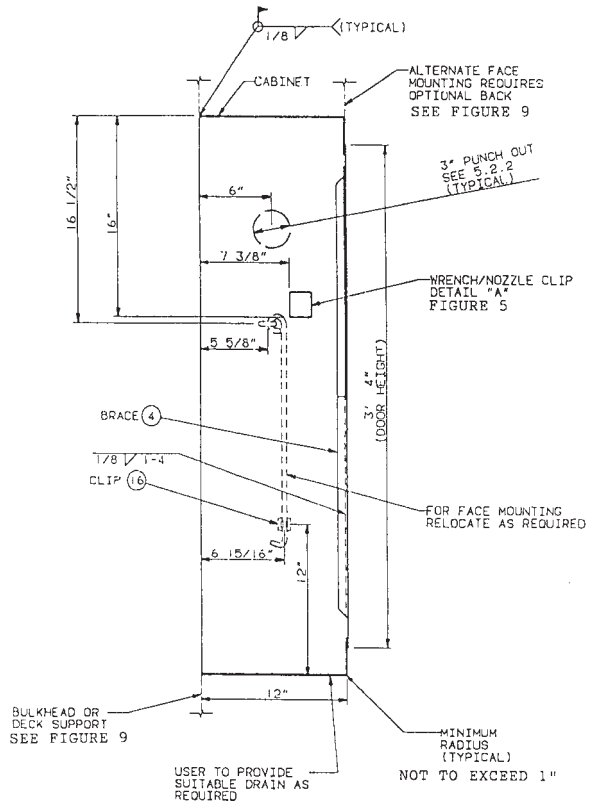


FIG. 3 Section "B-B"

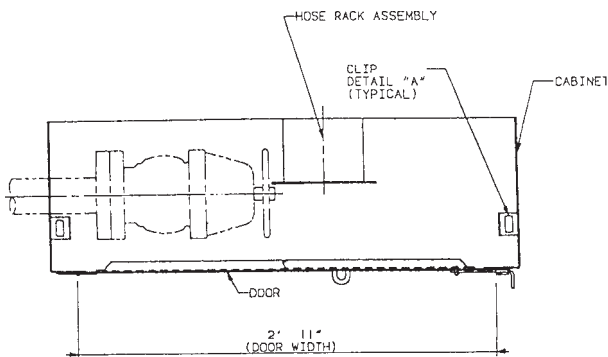


FIG. 4 Section "C-C"

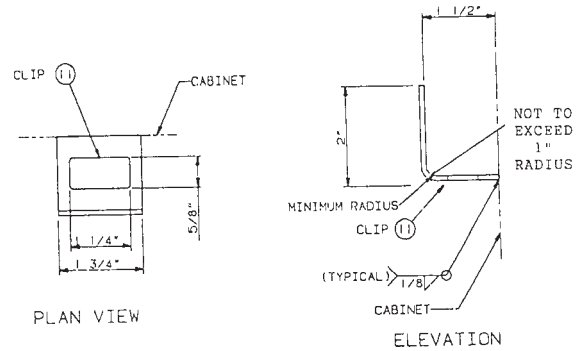


FIG. 5 Wrench/Nozzle Clip Detail "A"

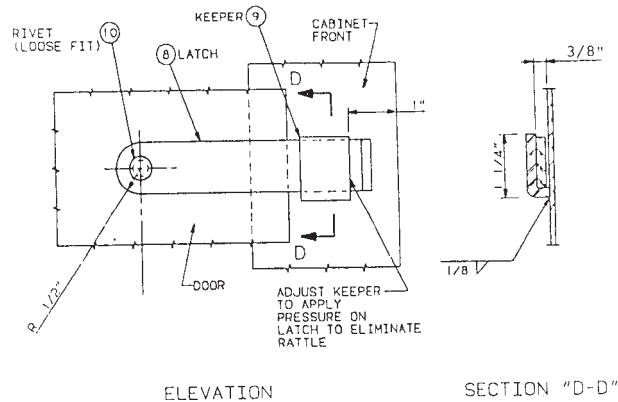
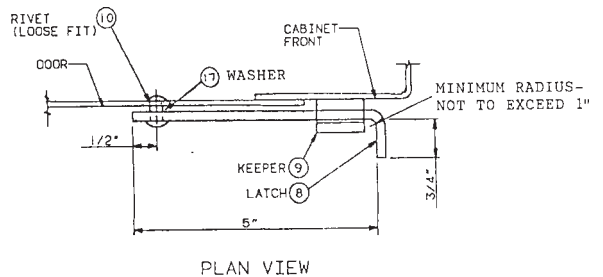
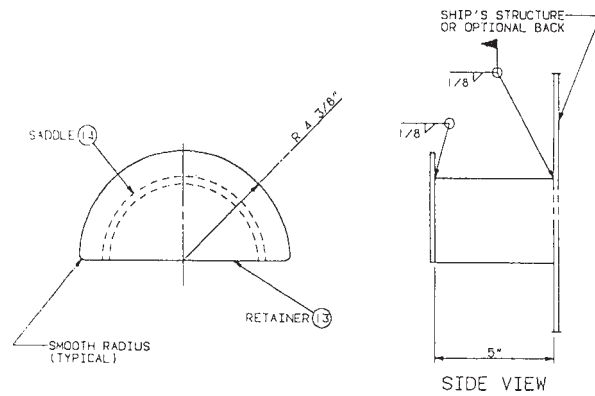
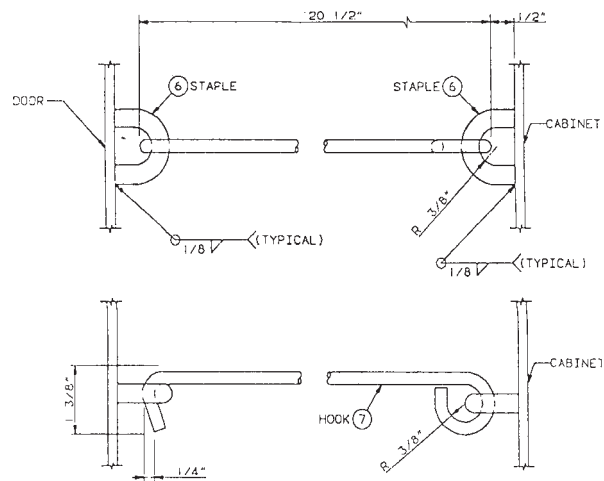


FIG. 6 Latch Assembly, Type II, Grade 1 Cabinet Shown, Others Similar, Detail "B"

7.3 The cabinets shall be crated or attached to a pallet in a manner acceptable for shipment by commercial carrier. The cabinets shall be crated individually.

8. Keywords

8.1 fire; foam; foam station cabinet; marine technology; ships



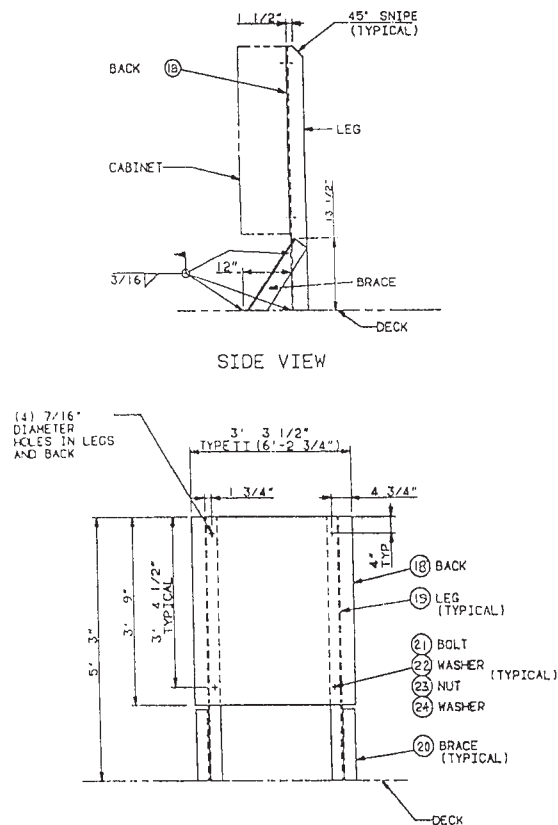


FIG. 9 Front View of Back Leg and Back Option Detail "E"

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