

SECTION 10 44 00  
FIRE PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Fire protection cabinets
  2. Portable fire extinguisher.
  3. Mounting brackets.

1.2 ACTION SUBMITTALS

- A. Product Data: Submit product data including construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire protection specialties.
1. Fire Extinguishers: Include rating and classification.
  2. Cabinets: Indicate door hardware, cabinet type, trim style, and panel style. Include roughing in dimensions and details showing recessed, semirecessed, or surface mounting method and relationships of box and trim to surrounding construction.
- B. Shop Drawings: Submit plans, elevations, sections, details, and attachments of fire protection cabinets to other work.
- C. Samples: Submit samples for each exposed finish required, prepared on samples 6 inches by 6 inches (150 mm by 150 mm) square.

1.3 CLOSEOUT SUBMITTALS

- A. Maintenance Data: Submit data for fire protection cabinets to include in maintenance manuals.

1.4 QUALITY ASSURANCE

- A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10 *Standard for Portable Fire Extinguishers*.
- B. Fire Extinguisher Listing: UL listed with UL Listing Mark for type, rating, and classification of extinguisher.
- C. Source Limitations:
1. Obtain fire protection cabinets through one source from a single manufacturer.
  2. Obtain fire extinguishers through one source from a single manufacturer.

3. Coordinate all fire extinguishers and fire protection cabinets to ensure all items are properly sized to fit for each application.

D. Preinstallation Conference: Conduct conference at site.

## 1.5 COORDINATION

A. Coordinate size of fire protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.

B. Coordinate sizes and locations of fire protection cabinets with wall depths.

C. Coordinate sizes and locations of fire protection cabinets with wall depths.

## 1.6 WARRANTY

A. Warranty, Fire Extinguisher: Written warranty in which manufacturer agrees to repair or replace components of portable fire extinguishers failing in materials or workmanship within specified warranty period.

1. Failures include, but are not limited to, the following:
  - a. Failure of hydrostatic test according to NFPA 10.
  - b. Faulty operation of valves or release levers.
2. Warranty Period: 6 years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 PERFORMANCE REQUIREMENTS

A. Fire Rated Fire Protection Cabinets: Listed and labeled to comply with requirements in ASTM E 814 for fire resistance rating of walls where installed.

B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

C. NFPA Compliance, Fire Extinguishers: Fabricate and label fire extinguishers to comply with NFPA 10 Portable Fire Extinguishers.

D. Fire Extinguishers: Listed and labeled for type, rating, and classification by an independent testing agency acceptable to authorities having jurisdiction.

1. Provide fire extinguishers approved, listed, and labeled by FM Global.

### 2.2 CABINET TYPE (FECW): SUITABLE FOR FIRE EXTINGUISHER.

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. JL Industries, Inc.; Activar Construction Products Group.

2. Larsens Manufacturing Company.
  3. Nystrom, Inc.
  4. Potter Roemer LLC.
- B. Cabinet Construction: Rated to meet adjacent construction.
1. Fire Rated Cabinets: Construct fire rated cabinets with double walls fabricated from 0.043 inch (1.09 mm) thick cold rolled steel sheet lined with minimum 5/8 inch (16 mm) thick fire barrier material. Provide factory drilled mounting holes.
- C. Cabinet Material: Cold rolled steel sheet unless otherwise indicated on the Drawings.
1. Shelf: Same metal and finish as cabinet.
- D. Surface Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim.
- E. Door Material: Same as Cabinet unless otherwise noted on the Drawings .
- F. Door Style: Vertical duo panel with frame.
- G. Door Glazing: Acrylic sheet.
1. Acrylic Sheet Color: Clear transparent acrylic sheet.
- H. Door Hardware: Door operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
1. Provide recessed door pull and friction latch.
  2. Provide continuous hinge, of same material and finish as trim,, permitting door to open 180 degrees.
- I. Accessories:
1. Mounting Bracket: Steel, designed to secure fire extinguisher to fire protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked enamel finish.
  2. Door Lock: Cam lock that allows door to be opened during emergency by pulling sharply on door handle.
  3. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
    - a. Identify fire extinguisher in fire protection cabinet with the words FIRE EXTINGUISHER.
      - 1) Location: Applied to cabinet door.
      - 2) Application Process: Pressure sensitive vinyl letters.
      - 3) Lettering Color: Red .
      - 4) Orientation: Vertical.
- J. Materials:
1. Cold Rolled Steel: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.

- a. Finish: Baked enamel, TGIC polyester powder coat, HAA polyester powder coat, epoxy powder coat, or polyester/epoxy hybrid powder coat, complying with AAMA 2603.
  - b. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - c. Color: Selected by Architect.
2. Transparent Acrylic Sheet: ASTM D 4802, Category A-1 (cell cast sheet), 6 mm thick, with Finish 1 (smooth or polished).

### 2.3 CABINET TYPE (FECR): SUITABLE FOR FIRE EXTINGUISHER.

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. JL Industries, Inc.; Activar Construction Products Group.
  2. Larsens Manufacturing Company.
  3. Nystrom, Inc.
  4. Potter Roemer LLC.
- B. Cabinet Construction: Rated to meet adjacent construction.
1. Fire Rated Cabinets: Construct fire rated cabinets with double walls fabricated from 0.043 inch (1.09 mm) thick cold rolled steel sheet lined with minimum 5/8 inch (16 mm) thick fire barrier material. Provide factory drilled mounting holes.
- C. Cabinet Material: Cold rolled steel sheet unless otherwise noted on the Drawings.
1. Shelf: Same metal and finish as cabinet.
- D. Recessed Cabinet:
1. Exposed Flat Trim: One piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).
- E. Cabinet Trim Material Same material and finish as door.
- F. Door Material: Same as Cabinet unless otherwise noted on the Drawings unless otherwise indicated on the Drawings.
- G. Door Style: Vertical duo panel with frame.
- H. Door Glazing: Acrylic sheet.
1. Acrylic Sheet Color: Clear transparent acrylic sheet.
- I. Door Hardware: Door operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
1. Provide recessed door pull and friction latch.
  2. Provide continuous hinge, of same material and finish as trim,, permitting door to open 180 degrees.

J. Accessories:

1. Mounting Bracket: Steel, designed to secure fire extinguisher to fire protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked enamel finish.
2. Door Lock: Cam lock that allows door to be opened during emergency by pulling sharply on door handle.
3. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
  - a. Identify fire extinguisher in fire protection cabinet with the words FIRE EXTINGUISHER.
    - 1) Location: Applied to cabinet door.
    - 2) Application Process: Pressure sensitive vinyl letters.
    - 3) Lettering Color: Red .
    - 4) Orientation: Vertical.

K. Materials:

1. Cold Rolled Steel: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
  - a. Finish: Baked enamel, TGIC polyester powder coat, HAA polyester powder coat, epoxy powder coat, or polyester/epoxy hybrid powder coat, complying with AAMA 2603.
  - b. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
  - c. Color: Selected by Architect.

2.4 CABINET TYPE (FECS): SUITABLE FOR FIRE EXTINGUISHER.

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. JL Industries, Inc.; Activar Construction Products Group.
2. Larsens Manufacturing Company.
3. Nystrom, Inc.
4. Potter Roemer LLC.

B. Cabinet Construction: Rated to meet adjacent construction.

1. Fire Rated Cabinets: Construct fire rated cabinets with double walls fabricated from 0.043 inch (1.09 mm) thick cold rolled steel sheet lined with minimum 5/8 inch (16 mm) thick fire barrier material. Provide factory drilled mounting holes.

C. Cabinet Material: Cold rolled steel sheet unless otherwise noted on the Drawings.

1. Shelf: Same metal and finish as cabinet.

D. Semirecessed Cabinet: One piece combination trim and perimeter door frame overlapping surrounding wall surface, with exposed trim face and wall return at outer edge (backbend).

1. Square Edge Trim: 1-1/4 inch to 1-1/2 inch (32 mm to 38 mm) backbend depth.

- E. Cabinet Trim Material: Same material and finish as door.
  - F. Door Material: Same as Cabinet unless otherwise noted on the Drawings
  - G. Door Style: Vertical duo panel with frame.
  - H. Door Glazing: Acrylic sheet.
    - 1. Acrylic Sheet Color: Clear transparent acrylic sheet.
  - I. Door Hardware: Door operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
    - 1. Provide recessed door pull and friction latch.
    - 2. Provide continuous hinge, of same material and finish as trim,, permitting door to open 180 degrees.
  - J. Accessories:
    - 1. Mounting Bracket: Steel, designed to secure fire extinguisher to fire protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked enamel finish.
    - 2. Door Lock: Cam lock that allows door to be opened during emergency by pulling sharply on door handle.
    - 3. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
      - a. Identify fire extinguisher in fire protection cabinet with the words FIRE EXTINGUISHER.
        - 1) Location: Applied to cabinet door.
        - 2) Application Process: Pressure sensitive vinyl letters.
        - 3) Lettering Color: Red.
        - 4) Orientation: Vertical.
  - K. Materials:
    - 1. Cold Rolled Steel: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
      - a. Finish: Baked enamel, TGIC polyester powder coat, HAA polyester powder coat, epoxy powder coat, or polyester/epoxy hybrid powder coat, complying with AAMA 2603.
      - b. Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturers' written instructions.
      - c. Color: Selected by Architect.
    - 2. Stainless Steel: ASTM A 666, Type 304; No. 4 directional satin finish.
    - 3. Transparent Acrylic Sheet: ASTM D 4802, Category A-1 (cell cast sheet), 6 mm thick, with Finish 1 (smooth or polished).
- 2.5 CABINET TYPE (FECX): SUITABLE FOR FIRE EXTINGUISHER EXTERIOR LOCATIONS.
- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. FSP America
  2. JL Industries, Inc.; Activar Construction Products Group.
  3. Larsens Manufacturing Company.
  4. Nystrom, Inc.
  5. Potter Roemer LLC.
- B. Cabinet Construction: Nonrated.
- C. Cabinet Material: HDPE, Molded Plastic or Polyurethane .
1. Color: Red.
- D. Surface Mounted Cabinet: Cabinet box fully exposed and mounted directly on wall with no trim, size confirmed to house extinguisher intended
1. Same as Cabinet unless otherwise noted on the Drawings. Acrylic Sheet Color: Clear transparent acrylic sheet.
- E. Door Hardware: Door operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
1. Provide projecting lever handle with cam action latch.
  2. Provide pivot hinge, permitting door to open 180 degrees.
- F. Accessories:
1. Mounting Bracket: Steel, designed to secure fire extinguisher to fire protection cabinet, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked enamel finish.
  2. Break Glass Strike: Metal strike, complete with chain and mounting clip, secured to cabinet.
  3. Break Glass Door Handle: Handle integral to glass with the words "PULL TO BREAK GLASS" applied to handle.
  4. Lettered Door Handle: One piece, cast iron door handle with the word "FIRE" embossed into face.
  5. Door Lock: Cam lock that allows door to be opened during emergency by pulling sharply on door handle.
  6. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
    - a. Identify fire extinguisher in fire protection cabinet with the words FIRE EXTINGUISHER.
      - 1) Location: Applied to cabinet door.
      - 2) Application Process: Engraved or Etched.
      - 3) Lettering Color: White.
      - 4) Orientation: Vertical.

## 2.6 FIRE EXTINGUISHERS

- A. Fire Extinguishers: Type, size, and capacity for each indicated.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. JL Industries, Inc.; a division of the Activar Construction Products Group.
    - b. Kidde Residential and Commercial Division.
    - c. Larsens Manufacturing Company.
    - d. Nystrom, Inc.
    - e. Potter Roemer LLC.
  2. Valves: Nickel plated, polished brass body.
  3. Handles and Levers: Stainless steel.
  4. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B, and bar coding for documenting fire extinguisher location, inspections, maintenance, and recharging.
- B. Multipurpose Dry Chemical Type in Steel Container: Class A Fire extinguisher for general use; UL rated 4-A:60-B:C, 10-lb (4.5-kg) nominal capacity, with monoammonium phosphate based dry chemical in enameled steel container.
1. Acceptable Products: Subject to compliance with requirements, provide one of the following:
    - 1) Model No. MP10 by Larsen's Manufacturing Company.
    - 2) Cosmic 10E by J. L. Industries.
    - 3) Model No. EX-3010 by Nystrom.
- C. Clean Agent Extinguishers: All extinguishers shall be coordinated by the contractor and sized to fit within the cabinets of their respective locations; coordinate all units for bracket mounting where indicated.
1. Clean-Agent Type in Steel Container: UL-rated 2-A:10-B:C, 15.5-lb nominal capacity, with HCFC Blend B agent (Halatron I) and inert material in enameled-steel container; with pressure-indicating gage.
    - a. Products: Subject to compliance with requirements, provide one of the following:
      - 1) Activar Construction Products Group, Inc. - JL Industries; Mercury FM15A.
      - 2) Larsens Manufacturing Company; HT15-1/2.
      - 3) Nystrom; EX-3115.
      - 4) Potter Roemer 3115 ABC 15.5# Halotron 1.
    - b. Standard: UL 2129 Halocarbon Clean Agent Fire Extinguishers.
    - c. Valves: Manufacturer's standard.
    - d. Handles and Levers: Manufacturer's standard.
    - e. Instruction Labels: Include pictorial marking system complying with NFPA 10, Appendix B, and bar coding for documenting fire-extinguisher location, inspections, maintenance, and recharging.

## 2.7 MOUNTING BRACKETS

- A. Mounting Brackets: Galvanized steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or red baked enamel finish.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Ansul Incorporated; Tyco International.
  - b. Guardian Fire Equipment, Inc.
  - c. JL Industries, Inc.; a division of the Activar Construction Products Group.
  - d. Kidde Residential and Commercial Division.
  - e. Larsens Manufacturing Company.
  - f. Nystrom, Inc.
  - g. Potter Roemer LLC.

## 2.8 IDENTIFICATION

- A. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location.
  1. Cabinet: Identify cabinet mounted fire extinguishers with the words FIRE EXTINGUISHER in letters applied to cabinet door.
  2. Bracket: Identify bracket mounted fire extinguishers with the words FIRE EXTINGUISHER in letter decals applied to mounting surface.
  3. Orientation: Vertical.
- B. Fire Extinguisher Tags: Color code fire extinguisher tags for type of extinguisher.
  1. Tag Color Code:
    - a. Red: Water fire extinguishers.
    - b. Yellow/Cream: Foam spray fire extinguishers.
    - c. Blue: Dry powder fire extinguishers.
    - d. Orange/Yellow: Wet chemical fire extinguishers.
    - e. Black: CO<sup>2</sup> fire extinguishers.

## 2.9 FABRICATION

- A. Fire Protection Cabinets: Provide manufacturer's standard box (tub) with trim, frame, door, and hardware to suit cabinet type, trim style, and door style indicated.
  1. Weld joints and grind smooth.
  2. Miter corners and grind smooth.
  3. Provide factory drilled mounting holes.
  4. Prepare doors and frames to receive locks.
  5. Install door locks at factory.
- B. Cabinet Doors: Fabricate doors from materials indicated and coordinated with cabinet types and trim styles.
  1. Fabricate door frames of one piece construction with edges flanged.
  2. Miter and weld perimeter door frames and grind smooth.
- C. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

## 2.10 FINISH REQUIREMENTS

- A. Comply with NAAMM's AMP 500 Metal Finishes Manual for Architectural and Metal Products for recommendations for applying and designating finishes.
- B. Protect mechanical finishes on exposed surfaces of fire protection cabinets from damage by applying a strippable, temporary protective covering before shipping.
- C. Finish fire protection cabinets after assembly.
- D. Appearance of Finished Work: Noticeable variations in same piece are unacceptable. Variations in appearance of adjoining components are acceptable if within the range of approved Samples and are assembled or installed to minimize contrast.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine walls and partitions for suitable framing depth and blocking where recessed and semirecessed cabinets will be installed.
- B. Examine fire extinguishers for proper charging and tagging.
  - 1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- C. Proceed with installation after correcting unsatisfactory conditions.

### 3.2 PREPARATION

- A. Prepare recesses for recessed and semirecessed cabinets required by type and size of cabinet and trim style.

### 3.3 INSTALLATION

- A. Install fire protection cabinets in locations and at mounting heights indicated or at heights acceptable to authorities having jurisdiction.
  - 1. Fire Protection Cabinets: 42 inches (1067 mm) above finished floor to top of fire extinguisher.
- B. Fire Protection Cabinets: Fasten cabinets to structure, square and plumb.
  - 1. Unless otherwise indicated, provide recessed fire protection cabinets. If wall thickness is inadequate for recessed cabinets, provide semirecessed fire protection cabinets.
  - 2. Provide inside latch and lock for break glass panels.
  - 3. Fasten mounting brackets to inside surface of fire protection cabinets, square and plumb.
- C. Fire Extinguishers: Install fire extinguishers and mounting brackets in locations indicated and in compliance with requirements of authorities having jurisdiction.

1. Mounting Brackets: Top of fire extinguisher shall be set at 42 inches (1067 mm) above finished floor.
- D. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.
- E. Identification:
  1. Apply lettering at locations indicated.

### 3.4 ADJUSTING AND CLEANING

- A. Remove temporary protective coverings and strippable films as fire protection cabinets are installed unless otherwise indicated in manufacturer's written installation instructions.
- B. Adjust fire protection cabinet doors to operate easily without binding. Verify that integral locking devices operate properly.
- C. On completion of fire protection cabinet installation, clean interior and exterior surfaces as recommended by manufacturer.
- D. Touch up marred finishes or replace fire protection cabinets that cannot be restored to factory finished appearance. Use only materials and procedures recommended or furnished by fire protection cabinet and mounting bracket manufacturers.
- E. Replace fire protection cabinets that have been damaged or have deteriorated beyond successful repair by finish touchup or similar minor repair procedures.

END OF SECTION

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