SECTION 104400 - FIRE-PROTECTION SPECIALTIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS
   A. Provisions of the Contract and of the Contract Documents apply to this Section.

1.2 FIRE EXTINGUISHERS
   A. Fire extinguishers shall be provided by the Owner for installation by the Contractor.

1.3 SUBMITTALS
   A. Product Data: Include construction details, material descriptions, dimensions of individual components and profiles, and finishes for fire-protection cabinets.
      1. Fire-Protection Cabinets: Include roughing-in dimensions, details showing mounting methods, relationships of box and trim to surrounding construction, door hardware, cabinet type, trim style, and panel style.
   B. Sustainable Design Submittals: None required.
   C. Maintenance Data: For fire-protection cabinets to include in maintenance manuals.

1.4 QUALITY ASSURANCE
   A. Source Limitations: Obtain fire-protection cabinets through one source from a single manufacturer.

1.5 COORDINATION
   A. Coordinate size of fire-protection cabinets to ensure that type and capacity of fire extinguishers indicated are accommodated.
   B. Cabinets whose doors do not remain closed due to extinguishers or other intended contents are not acceptable.

PART 2 - PRODUCTS

2.1 MANUFACTURERS
   A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
      1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 MATERIALS
   A. Cold-Rolled Steel Sheet: ASTM A 1008/A 1008M, Commercial Steel (CS), Type B.
B. Stainless-Steel Sheet: ASTM A 666, Type 304.
C. Acrylic Bubble: One piece.

2.3 FIRE-PROTECTION CABINET
A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. JL Industries, Inc.
   2. Kidde Fyrnetics.
   4. Modern Metal Products; Div. of Technico.
   5. Potter Roemer; Div. of Smith Industries, Inc.
   6. Watrous; Div. of American Specialties, Inc.
B. Cabinet Type: Suitable for fire extinguisher.
C. Cabinet Construction: Nonrated except where required for fire rated construction indicated.
D. Cabinet Material: Enameled-steel sheet.
E. Semirecessed Cabinet: Cabinet box partially recessed in walls of shallow depth to suit style of trim indicated; with one-piece combination trim and perimeter door frame overlapping surrounding wall surface with exposed trim face and wall return at outer edge (backbend).
   1. Rolled-Edge Trim: 2-1/2-inch (64-mm) backbend depth.
F. Cabinet Trim Material: Stainless-steel sheet.
G. Door Material: Stainless-steel sheet.
H. Door Style: Full bubble with frame.
I. Door Glazing: Molded acrylic bubble.
J. Door Hardware: Manufacturer's standard door-operating hardware of proper type for cabinet type, trim style, and door material and style indicated.
   1. Provide manufacturer's standard pull and roller or friction latch.
   2. Provide continuous hinge, of same material and finish as trim, permitting door to open 180 degrees.
K. Accessories:
   1. Mounting Bracket: Manufacturer's standard 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. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
      a. Identify fire extinguisher in fire-protection cabinet with the words “FIRE EXTINGUISHER.”
         1) Location: Applied to back of acrylic bubble.
3) Lettering Color: Black.
4) Orientation: Vertical.

L. Finishes:
1. Manufacturer's standard baked-enamel paint for the following:
   a. Interior of cabinet.
2. Stainless Steel: No. 4 finish.

2.4 MOUNTING BRACKETS
A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
   1. Amerex Corporation.
   2. Ansul Incorporated.
   5. Fire End & Croker Corporation.
   6. JL Industries, Inc.
   8. Potter Roemer; Div. of Smith Industries, Inc.
B. Mounting Brackets: Manufacturer's standard steel, designed to secure fire extinguisher to wall or structure, of sizes required for types and capacities of fire extinguishers indicated, with plated or baked-enamel finish.
C. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Architect.
   1. Identify bracket-mounted fire extinguishers with the words “FIRE EXTINGUISHER” in red letter decals applied to mounting surface.

2.5 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. Fabricate semirecessed units so that they project no more than 4 inches (101 mm) from face of wall.
   2. Weld joints and grind smooth.
   3. Construct fire-rated cabinets with double walls fabricated from 0.0428-inch- (1.1-mm-) thick, cold-rolled steel sheet lined with minimum 5/8-inch- (16-mm-) thick, fire-barrier material.
      a. Provide factory-drilled mounting holes.
B. Cabinet Doors: Fabricate doors according to manufacturer's standards, from materials indicated and coordinated with cabinet types and trim styles selected.
1. Fabricate door frames with tubular stiles and rails and hollow-metal design, minimum 1/2 inch (13 mm) thick.
2. Miter and weld perimeter door frames.
C. Cabinet Trim: Fabricate cabinet trim in one piece with corners mitered, welded, and ground smooth.

2.6 FINISHES, GENERAL
A. Comply with NAAMM's “Metal Finishes Manual for Architectural and Metal Products” for recommendations for applying and designating finishes.
B. Protect mechanical finishes on exposed surfaces from damage by applying a strippable, temporary protective covering before shipping.
C. Finish fire-protection cabinets after assembly.

2.7 STAINLESS-STEEL FINISHES
A. General: Remove tool and die marks and stretch lines or blend into finish.
   1. Grind and polish surfaces to produce uniform, directionally textured, polished finish indicated, free of cross scratches. Run grain with long dimension of each piece.
B. Bright, Directional Polish: No. 4 finish.
C. When polishing is completed, passivate and rinse surfaces. Remove embedded foreign matter and leave surfaces chemically clean.

PART 3 - EXECUTION

3.1 EXAMINATION
A. Examine walls and partitions for suitable framing depth and blocking where semirecessed cabinets will be installed.
B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION
A. Prepare recesses for semirecessed fire-protection cabinets as required by type and size of cabinet and trim style.

3.3 INSTALLATION
A. General: Install fire-protection specialties in locations and at mounting heights indicated or, if not indicated, at heights indicated below:
   1. Fire-Protection Cabinets: 48 inches (1219 mm) above finished floor to top of cabinet.
   2. Mounting Brackets: 48 inches (1219 mm) above finished floor to top of fire extinguisher.
B. Fire-Protection Cabinets: Fasten fire-protection cabinets to structure, square and plumb.
   1. Unless otherwise indicated, provide semirecessed fire-protection cabinets.
2. Fasten mounting brackets to inside surface of fire-protection cabinets, square and plumb.
   C. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.
   D. Identification: Apply decals or vinyl lettering at locations indicated.

3.4 ADJUSTING AND CLEANING
   A. Remove temporary protective coverings and strippable films, if any, as fire-protection specialties 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 manufacturer.
   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 104400