

SECTION 104416 - FIRE EXTINGUISHERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes portable, [**hand-carried**] [**wheeled**] fire extinguishers[**and mounting brackets for fire extinguishers**] installed as part of the project. This specification does not address Contractor-supplied fire extinguishers used during the construction period but the Contractor shall not use already installed Government-owned fire extinguishers to meet construction (hot work) requirements.
- B. NIH-Furnished Material: [**Hand-carried**] [**Wheeled**] fire extinguishers.
- C. Related Sections:
 - 1. Division 10 Section "Fire Extinguisher Cabinets."
 - 2. Division 21 Section "Water-Based Fire-Suppression Systems" for hose systems, racks, and valves.
 - 3. Division 23 Section "Commercial-Kitchen Hoods" for fire extinguishing systems provided as part of commercial-kitchen exhaust hoods.

1.3 UNIT PRICES

- A. Work of this Section is affected by <**Insert name of unit price**>.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Include rating and classification, material descriptions, dimensions of individual components and profiles, and finishes for fire extinguisher[**and mounting brackets**].
- B. Product Schedule: For fire extinguishers. Coordinate final fire extinguisher schedule with fire protection cabinet schedule to ensure proper fit and function.[**Use same designations indicated on Drawings.**]
- C. Remaining paragraphs are defined in Division 01 Section "Submittal Procedures" as "Informational Submittals." Operation and Maintenance Data: For fire extinguishers to include in maintenance manuals.
- D. Warranty: Sample of special warranty.

1.5 QUALITY ASSURANCE

- A. NFPA Compliance: Fabricate and label fire extinguishers to comply with NFPA 10, "Portable Fire Extinguishers."
- B. 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 FMG.
- C. Fire extinguisher submittals shall be reviewed and approved by the NIH Division of the Fire Marshal before purchase of the extinguishers.
 - 1. Review methods and procedures related to fire extinguishers including, but not limited to, the following:
 - a. Schedules and coordination requirements.

1.6 COORDINATION

- A. Coordinate type and capacity of fire extinguishers with fire protection cabinets to ensure fit and function.
- B. Coordinate fire extinguisher model with the spare parts maintained by the NIH Fire Department for extinguisher testing, recharge and maintenance.

1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace fire extinguishers that fail 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: [**Six**] <Insert number> years from date of Substantial Completion.

PART 2 - PRODUCTS

2.1 PORTABLE, HAND-CARRIED FIRE EXTINGUISHERS

- A. Fire Extinguishers: Type, size, and capacity for each [**fire protection cabinet**] [**mounting bracket**] [**fire protection cabinet and mounting bracket**] indicated.

1. Manufacturers: Subject to compliance with requirements, provide products which utilize the following spare parts maintained by the NIH Fire Department to allow their testing, recharge and maintenance.
 2. Stored-Pressure Water Type extinguisher
 - a. Amerex Pull Pin
 - b. Amerex Tamper seal
 - c. Amerex 532A chain for Pin
 - d. Amerex G100WS gauge - 100
 - e. Amerex 5240A Collar O-ring
 - f. Amerex 14878A – valve stem assembly
 - g. Amerex 5243A – valve stem O-ring
 - h. Amerex 383A – spring
 - i. Amerex 6978 – hose gasket O-ring
 3. Multipurpose Dry-Chemical Type extinguisher in Steel Container
 - a. Amerex Pull Pin
 - b. Amerex Tamper seal
 - c. Amerex 532A chain for Pin
 - d. Amerex G195 gauge - 195
 - e. Amerex 5241A Collar O-ring
 - f. Amerex 6092A – valve stem assembly
 - g. Amerex 1074A - spring
 - h. Amerex 1532A – hose gasket O-ring
 4. Valves: **[Manufacturer's standard] [Nickel-plated, polished brass body]**.
 5. Handles and Levers: **[Manufacturer's standard] [Stainless steel]**.
 6. 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. Stored-Pressure Water Type <**Insert drawing designation**>: UL-rated 2-A, **9.5-L (2.5-gal.)** nominal capacity, with water in stainless-steel container; with pressure-indicating gage.
- C. Wet-Chemical Type <**Insert drawing designation**>: UL-rated 2-A:1-B:C:K, **[6-L (1.6-gal.)] [9.5-L (2.5-gal.)]** nominal capacity, with potassium **[acetate] [citrate] [carbonate]**-based chemical in stainless-steel container; with pressure-indicating gage.
- D. Multipurpose Dry-Chemical Type in Steel Container: UL-rated 4-A:60-B:C, **4.5-kg (10-lb)** nominal capacity, with monoammonium phosphate-based dry chemical in enameled-steel container.
- E. Multipurpose Dry-Chemical Type in Aluminum Container **4.5-kg (10-lb)** nominal capacity, with monoammonium phosphate-based dry chemical in enameled-aluminum container.

2.2 MOUNTING BRACKETS <Insert drawing designation>

- A. Mounting Brackets: Manufacturer's standard[**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**] [**black**] baked-enamel finish.
1. Manufacturers: Subject to compliance with requirements, [**provide products by one of the following**] [**available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following**]:
 2. Basis-of-Design Product: Subject to compliance with requirements, provide [**product indicated on Drawings**] <Insert manufacturer's name; product name or designation> or comparable product by one of the following:
 - a. Amerex Corporation.
 - b. Ansul Incorporated; Tyco International Ltd.
 - c. Badger Fire Protection; a Kidde company.
 - d. Buckeye Fire Equipment Company.
 - e. Fire End & Croker Corporation.
 - f. J. L. Industries, Inc.; a division of Activar Construction Products Group.
 - g. Larsen's Manufacturing Company.
 - h. Potter Roemer LLC.
 - i. <Insert manufacturer's name>.
- B. Identification: Lettering complying with authorities having jurisdiction for letter style, size, spacing, and location. Locate as indicated by Contracting Officer.
1. Identify bracket-mounted fire extinguishers with the words "FIRE EXTINGUISHER" in red letter decals applied to mounting surface.
 - a. Orientation: [**Vertical**] [**Horizontal**].

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine fire extinguishers for proper charging and tagging.
1. Remove and replace damaged, defective, or undercharged fire extinguishers.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. General: Install fire extinguishers[**and mounting brackets**] in locations indicated and in compliance with requirements of authorities having jurisdiction.
1. Mounting Brackets: [**1372 mm (54 in.)**] <Insert dimension> above finished floor to top of fire extinguisher.

- B. Mounting Brackets: Fasten mounting brackets to surfaces, square and plumb, at locations indicated.

END OF SECTION 104416