SECTION 21 12 00

FIRE-SUPPRESSION STANDPIPES

**PART 1 GENERAL**

1. **SECTION INCLUDES**
2. Fire Hose reel cabinets.
3. Landing valves.
4. Fire extinguishers.
5. **RELATED REQUIREMENTS**
6. Section 21 0500 - Common Work Results for Fire Suppression: Fire protection piping.
7. Section 21 0523 - General-Duty Valves for Water-Based Fire-Suppression Piping.
8. Section 21 0553 - Identification for Fire Suppression Piping and Equipment.
9. Section 21 1300 - Fire Suppression Sprinklers.
10. **REFERENCE STANDARDS**
11. FM Approval Guide; Factory Mutual Global; current edition.
12. NFPA 10 - Standard for Portable Fire Extinguishers; National Fire Protection Association; 2013.
13. NFPA 14 - Standard for the Installation of Standpipe and Hose Systems; National Fire Protection Association; 2016.
14. NFPA 1963 - Standard for Fire Hose Connections; 2014.
15. UL 4 - Armored Cable; Current Edition, Including All Revisions.
16. UL 405 - Fire Department Connection Devices; Current Edition; Including All Revisions.
17. UL (DIR) - Online Certifications Directory; Underwriters Laboratories Inc.; current listings at database.ul.com.
18. **ADMINISTRATIVE REQUIREMENTS**
19. Pre installation Meeting: Conduct a pre installation meeting one week prior to the start of the work of this section; require attendance by all affected installers.
20. **SUBMITTALS**
21. Product Data: Provide manufacturer's catalog sheet for equipment indicating rough-in size, finish, and accessories.
22. Shop Drawings: Indicate supports, components, accessories, and sizes.
23. Submit shop drawings and product data to Employer/Owner's insurance underwriter for approval.
24. Submit proof of approval to Architect/Engineer.
25. Project Record Documents: Record actual locations of components.
26. Operation Data: Include appropriate manufacturer's data.
27. Maintenance Data: Include servicing requirements and test schedule.
28. Certificates: Provide certificate of compliance from authority having jurisdiction indicating approval of field acceptance tests.
29. Maintenance Materials: Furnish the following for Employer/Owner's use in maintenance of project.
30. Extra Hose Nozzles: One.
31. Extra Hoses: One.
32. **QUALITY ASSURANCE**
33. Perform Work in accordance with NFPA 14. Maintain one copy on site.
34. Installer Qualifications: Company specializing in performing the work of this section with five years’ experience.
35. **DELIVERY, STORAGE, AND HANDLING**
36. Deliver and store products in shipping packaging until installation.

**PART 2 PRODUCTS**

1. **FIRE HOSE REEL CABINETS**
2. Cabinet:
3. The cabinet and door leaf shall be made of 1.5 mm galvanized steel sheet painted with thermal red paint
4. Style: Cabinets shall be recessed in walls unless otherwise noted on Design Drawings.
5. Door: 1.5 mm galvanized steel sheet painted with thermal red paint; hinged, positive latch device.
6. Hose Reel: complete with 30m x 25mm rubber hose, wound on automatic swivel (swing out) hose reel, guide arm, chrome plated forged brass couplings attached, 25mm chrome plated forged brass valve and 25mm jet and spray nozzle.
7. Nozzle: Chrome plated brass; combination fog, straight stream, and adjustable shut-off.
8. Label: minimum 15mm letters in both Arabic and English languages.
9. **FIRE EXTINGUISHERS**
10. General: Comply with NFPA 10; FM and UL (DIR) listed product.
11. Carbon Dioxide Type: Insulated handle, hose and horn discharge assembly, self-closing lever or squeeze grip operated, insulated handle. Capacities according to drawings.
12. Multi-Purpose Dry Chemical Type: Cartridge operated with hose and shut-off nozzle or integral shut-off nozzle. Capacities according to drawings.
13. Foam - Class A and B fires. Foam extinguishers shall be of the stored pressure type with steel cylinders, braided PVC or black reinforced rubber discharge hose and nozzle and pressure gauge. Suitable carrying handles shall be corporated in the extinguisher body or control mechanism molding. Capacities according to drawings.
14. Fire Extinguisher - Trolley Mounted

Description: Trolley mounted fire extinguishers suitable for multipurpose application of fires involving free burning materials, flammable liquids, flammable gases and electrical equipment.

**PART 3 EXECUTION**

1. **INSTALLATION**
2. Install in accordance with manufacturer's instructions.
3. Install in accordance with NFPA 14.
4. Locate and secure cabinets plumb and level. Establish top of cabinet (inside horizontal) surface 1675 mm (66 inches) above finished floor.
5. Locate hose station valve in cabinet at 1500 mm (60 inches) above finished floor.
6. Connect standpipe system to water source ahead of domestic water connection.
7. Where static pressure exceeds 690 kPa (100 psi) but is less than 690 kPa (100 psi) at any hose station, provide pressure orifice disc in discharge of hose station valve to prevent pressure on hose exceeding 620 kPa (90 psi).
8. Where static pressure exceeds 690 kPa (100 psi) at any hose station, provide pressure reducing valve to prevent pressure on hose exceeding 620 kPa (90 psi).
9. Flush entire system of foreign matter.
10. **FIELD QUALITY CONTROL**
11. Test entire system in accordance with NFPA 14.
12. Test shall be witnessed by Authority Having Jurisdiction.

**END OF SECTION**