
SECTION 08 33 23
OVERHEAD COILING DOORS**PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Interior non-fire-rated coiling doors.
- B. Electric operators and control stations.
- C. Wiring from electric circuit disconnect to operators and control stations.

1.2 RELATED REQUIREMENTS

- A. Section 07 92 00 - Joint Sealants: Sealing joints between frames and adjacent construction.
- B. Section 08 71 00 - Door Hardware: Cylinder cores and keys.
- C. Section 26 05 33.13 - Conduit for Electrical Systems: Conduit from electric circuit to operator and from operator to control station.
- D. Section 26 05 83 - Wiring Connections: Power to disconnect.

1.3 REFERENCE STANDARDS

- A. ASTM A36/A36M - Standard Specification for Carbon Structural Steel 2019.
- B. ASTM A123/A123M - Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products 2017.
- C. ASTM A653/A653M - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process 2022.
- D. ITS (DIR) - Directory of Listed Products Current Edition.
- E. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum) 2020.
- F. NEMA ICS 2 - Industrial Control and Systems Controllers, Contactors and Overload Relays Rated 600 Volts 2008 (Reaffirmed 2020).
- G. NEMA MG 1 - Motors and Generators 2021.
- H. NFPA 70 - National Electrical Code Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- I. UL (DIR) - Online Certifications Directory Current Edition.
- J. UL 325 - Standard for Door, Drapery, Gate, Louver, and Window Operators and Systems Current Edition, Including All Revisions.

1.4 SUBMITTALS

- A. See Section 01 30 00 - Administrative Requirements for submittal procedures.
- B. Product Data: Provide general construction, electrical equipment, and component connections and details.
- C. Shop Drawings: Indicate pertinent dimensioning, anchorage methods, hardware locations, and installation details.
- D. Maintenance Data: Indicate lubrication requirements and frequency and periodic adjustments required.
- E. Specimen warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this section with minimum three years of documented experience.
- B. Installer Qualifications: Company specializing in performing work of type specified and with at least three years documented experience.
- C. Products Requiring Electrical Connection: Listed and classified by ITS (DIR), UL (DIR), or testing firm acceptable to authorities having jurisdiction as suitable for purpose specified and indicated.

1.6 WARRANTY

- A. See Section 01 78 00 - Closeout Submittals for additional warranty requirements.
- B. Manufacturer Warranty: Provide five-year manufacturer warranty for three-ply multifilament polyester fabric curtain. Complete forms in Owner's name and register with manufacturer.
- C. Manufacturer Warranty: Provide 2-year manufacturer warranty for roller shaft counterbalance assembly. Complete forms in Owner's name and register with manufacturer.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Basis of Design Overhead Coiling Grilles: Overhead Door Corporation Model No. 671; www.overheaddoor.com or comparable products meeting project requirements by one of the following:

2.2 COILING DOORS

- A. Interior Non-Fire-Rated Coiling Doors: Steel slat curtain.
 - 1. Single Thickness Slats: Manufacturer's standard.
 - a. Material: Manufacturer's standard roll-formed 18 gauge galvanized steel. .
 - b. Overall Door Size: As indicated in drawings.
 - c. Slat Size: 2-5/8 inches by 5/8 inch.
 - d. Finish: Factory painted, powder coat "PowderGuard Max" color as selected by Architect.
 - e. Guides, Angles: Galvanized steel, finish to be same as slats.
 - f. Hood Enclosure: Manufacturer's standard; galvanized steel, finish to be same as slats.
 - g. Manual hand chain lift operation option to allow door use when electric power is not available.
 - h. Electric operation.
 - i. Mounting: Surface mounted.

2.3 MATERIALS AND COMPONENTS

- A. Metal Curtain Construction: Interlocking slats.
 - 1. Curtain Bottom for Slat Curtains: Fitted with galvanized steel angles to provide reinforcement and positive contact in closed position.
 - 2. Weatherstripping: Moisture and rot proof, resilient type, located at jamb edges, bottom of curtain, and where curtain enters hood enclosure of exterior doors.
 - 3. Steel Slats: Minimum thickness, 18 gauge, 0.0478 inch; ASTM A653/A653M galvanized steel sheet.
 - a. Galvanizing: Minimum G90 coating.

- B. Guide Construction: Continuous, of profile to retain door in place with snap-on trim, mounting brackets of same metal.
- C. Guides - Angle: ASTM A36/A36M metal angles, size as indicated.
 - 1. Hot-dip galvanized in compliance with ASTM A123/A123M.
- D. Hood Enclosure and Trim: Internally reinforced to maintain rigidity and shape.
 - 1. Minimum thickness; 24 gauge, 0.0239 inch.
 - 2. Galvanized steel with factory applied powder coat finish..
- E. Lock Hardware:
 - 1. For motor operated units, additional lock or latching mechanisms are not required.
 - 2. Manual Chain Lift: Provide padlockable chain keeper on guide.
- F. Roller Shaft Counterbalance: Steel pipe and helical steel spring system, capable of producing torque sufficient to ensure smooth operation of curtain from any position and capable of holding position at mid-travel; with adjustable spring tension; requiring 25 lb nominal force to operate.

2.4 ELECTRIC OPERATION

- A. Operator, Controls, Actuators, and Safeties: Comply with UL 325; provide products listed by ITS (DIR), UL (DIR), or testing agency acceptable to authorities having jurisdiction.
 - 1. Provide interlock switches on motor operated units.
- B. Electric Operators:
 - 1. Mounting: Side mounted.
 - 2. Motor Enclosure:
 - a. Interior Coiling Doors: NEMA MG 1, Type 1; open drip proof.
 - 3. Motor Rating: 1/2 HP; continuous duty.
 - 4. Motor Voltage: 120 volts, single phase, 60 Hz.
 - 5. Motor Controller: NEMA ICS 2, full voltage, reversing magnetic motor starter.
 - 6. Controller Enclosure: NEMA 250, Type 4.
 - 7. Opening Speed: 12 inches per second.
 - 8. Brake: Manufacturer's standard type, activated by motor controller.
 - 9. Manual override in case of power failure.
 - 10. See Section 26 05 83 for electrical connections.
- C. Wiring Terminations: Provide terminal lugs to match branch circuit conductor quantities, sizes, and materials indicated; enclose terminal lugs in terminal box sized to comply with NFPA 70.
- D. Control Station: Provide standard three button, 'Open-Close-Stop' momentary-contact control device for each operator complying with UL 325.
 - 1. 24 volt circuit.
 - 2. Surface mounted, at interior door jamb.
 - 3. Entrapment Protection Devices: Provide sensing devices and safety mechanisms complying with UL 325.
 - a. Primary Device: Provide electric sensing edge, wireless sensing, NEMA 1 photo eye sensors, or NEMA 4X photo eye sensors as required with momentary-contact control device.
- E. Safety Edge: Located at bottom of coiling door, full width, electro-mechanical sensitized type, wired to stop and reverse door direction upon striking object, hollow neoprene covered.
 - 1. Provide interconnection to security system.

2. Coordination: Provide materials required for and coordination with respective contractors for electronic access control of coiling grille.

PART 3 EXECUTION**3.1 EXAMINATION**

- A. Verify that adjacent construction is suitable for door installation.
- B. Verify that electrical services have been installed and are accessible.
- C. Verify that door opening is plumb, header is level, and dimensions are correct.
- D. Notify Architect of any unacceptable conditions or varying dimensions.
- E. Commencement of installation indicates acceptance of substrate and door opening conditions.

3.2 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- C. Securely and rigidly brace components suspended from structure. Secure guides to structural members only.
- D. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- E. Coordinate installation of electrical service with Section 26 05 83.
- F. Complete wiring from disconnect to unit components.
- G. Install enclosure and perimeter trim.

3.3 TOLERANCES

- A. Maintain dimensional tolerances and alignment with adjacent work.
- B. Maximum Variation From Plumb: 1/16 inch.
- C. Maximum Variation From Level: 1/16 inch.
- D. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch per 10 feet straight edge.

3.4 ADJUSTING

- A. Adjust operating assemblies for smooth and noiseless operation.

3.5 CLEANING

- A. Clean installed components.
- B. Remove labels and visible markings.

END OF SECTION 08 33 23