

SECTION 08 30 00
SPECIALTY DOORS

PART 1 GENERAL

1.01 REFERENCES

A. The following is a list of standards which may be referenced in this section:

1. American Iron and Steel Institute (AISI).
2. American Society of Mechanical Engineers (ASME): Boiler and Pressure Vessel Code, Section VIII, Division 1, Appendix VIII.
3. ASTM International (ASTM):
 - a. A36/A36M, Standard Specification for Carbon Structural Steel.
 - b. A653, Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
 - c. E84, Standard Test Method for Surface Burning Characteristics of Building Materials.
4. Door & Access Systems Manufacturer's Association (DASMA).
5. National Electrical Manufacturers' Association (NEMA): 250, Enclosures for Electrical Equipment (1000 Volts Maximum).
6. National Fire Protection Association (NFPA): 70, National Electrical Code.
7. UL: Building Materials Directory.

1.02 SUBMITTALS

A. Action Submittals:

1. Manufacturer's catalog information, descriptive literature, specification, and identification of materials of construction.
2. Shop Drawings:
 - a. Shop Drawings showing construction and installation details, and electrical characteristics and control diagrams for motor operators.
 - b. Identify each door with same reference as used on the Drawings.
 - c. Anchorage and bracing drawings and/or catalog information, as required by Section 01 88 15, Anchorage and Bracing.
3. Samples:
 - a. Overhead Coiling Door: Submit two door slats, 12 inches by 12 inches (300 mm by 300 mm) in size illustrating shape, color, and finish texture.
 - b. Manufacturer's current color sample(s) for factory finished coatings.

B. Informational Submittals:

1. Anchorage and bracing calculations as required by Section 01 88 15, Anchorage and Bracing, for loads provided in General Structural Notes on the Drawings. Submit with Action Submittal for the same item.
2. Watertight Door: Furnish manufacturer's certification of leak tightness based on actual tests conducted on this door, or a door similar in design, to verify it will withstand specified hydrostatic pressure with no evident leakage.
3. Sustainable Design: In accordance with Section 01 81 13, Sustainable Design Requirements for Non-LEED™ Projects, document sustainability performance for items listed below.
 - a. Product Data for Recycled Materials:
 - 1) A complete list of materials and quantities.
 - 2) Percentages of post-consumer and pre-consumer recycled content of all materials.

1.03 QUALITY ASSURANCE

A. Qualifications:

1. Manufacturer: Company specializing in manufacturing products specified in this section with minimum 3 years' experience.
2. Installer: Company specializing in performing work of this section approved by manufacturer.

1.04 DELIVERY, STORAGE, AND HANDLING

- A. Deliver doors with separators and wrapping to protect units from damage during and after installation.
- B. Store doors in protected dry area following manufacturer's requirements.
- C. Handle doors according to manufacturer's instructions.
- D. Protect exposed finish surfaces of prefinished items with wrapping.

PART 2 PRODUCTS

2.01 OVERHEAD COILING (ROLLUP) DOORS

A. Manufacturers and Products:

1. Cookson Co.; Model Thermiser Max.
2. Or equal.

B. Physical Characteristics:

1. Curtain:
 - a. Conform to the following:
 - 1) Steel Slats:
 - a) Interlocking, minimum 24 gauge (0.75 mm) thick of ASTM A653/A653M steel, minimum galvanized coating designation G60 (Z275) in accordance with ASTM A653/A653M.
 - b) Type: Insulated flat slat construction with manufacturer's standard insulated core with minimum R-value of 7 and backing to match face slat, thermally separated from face slat.
 - c) Color: Factory-applied fluoropolymer coating in color as noted in Door and Hardware Schedule as shown on the Drawings.
 - 2) Nominal Slat Size: 2 inches wide by required length.
 - 3) Slat Ends: Each slat fitted with end locks to act as wearing surface in guides and to prevent lateral movement.
 - 4) Curtain Bottom: Fitted with angles, channels, or tubes to provide reinforcement and positive contact with floor in closed position.
2. Guides:
 - a. Minimum 3/16 inch (5 mm) thick; galvanized steel conforming to ASTM A653/A653M, minimum galvanized coating designation G60 (Z275) in accordance with ASTM A653/A653M.
 - b. Furnish continuous angles of profile to retain door in place; mounting brackets of same metal.
3. 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.
4. Hood Enclosure: Match curtain material and finish.
5. Hardware:
 - a. Locks: Furnish locks to allow doors to be secured.
 - 1) Electric Doors: Manufacturer's standard cylinder locking system to secure door; interlock with motor to prevent motor from operating when lock is activated.
 - b. Weatherstripping (Exterior Assemblies): Moisture and rot proof, resilient type for complete weathertight installation.
 - 1) Rubber, polychloroprene, or vinyl water seal at hood to prevent airflow around coil on exterior doors.
 - 2) Weather seal sealing strip on guide to close space between guide and curtain on exterior doors.

- 3) Bottom Bar:
 - a) Manufacturers and Products:
 - (1) Xcluder Rodent and Pest Defense; Xcluder X2 Rodent Proof Seal Kit for Roll-up Doors.
 - (2) Or equal.
 - b) Physical Characteristics: Combination rodent proof seal of rubber outer layer with fill fabric lining and brush seal with aluminum retainers for attachment.
 - c) Functional Characteristics: None.
 - d) Performance Characteristics: None.
- 6. Electric Operation:
 - a. Electric motor operated unit with manual override in case of power failure.
 - b. UL 325, side mounted, totally enclosed, nonventilated or fan-cooled motor.
 - c. Motor Voltage: 480 volts, three-phase, 60 Hz.
 - d. Brake: Adjustable friction clutch type, activated by motor controller.
 - e. Control Station: Standard three button (OPEN-STOP-CLOSE) momentary control for each operator, 24-volt circuit, surface mounted.
 - f. Safety Edge: Manufacturer's standard safety edge and weatherseal located at door bottom, full width, sensitized type, wired to reverse upon striking object.
- 7. Finishes:
 - a. Curtain Slats: Steel, galvanized with A60 zinc coating in accordance with ASTM A653/A653M primed and painted.
 - b. Steel Guides and Hood Enclosure: Galvanized with A60 zinc coating in accordance with ASTM A653/A653M, prefinished with shop applied fluoropolymer.

C. Functional Characteristics:

- 1. Operation: Design door assembly to operate for not less than 50,000 cycles and 20 cycles per day.

D. Performance Characteristics:

- 1. Wind Loads: Design door assembly to withstand wind/suction load of 30 psf, with maximum deflection of 1/120, and without damage to door or assembly components.
- 2. Products Requiring Electrical Connection: Listed and classified by UL or another testing firm acceptable to authority having jurisdiction.
- 3. Surface Burning Characteristics, Foam Insulation: Maximum 75/450 flame spread/smoke developed index when tested in accordance with ASTM E84.

4. Sustainable Material Requirements: Provide products with a minimum combined recycled content of 30 percent and a minimum post-consumer recycled content of 25 percent.
 - a. Source Quality Control: Apply label from agency approved by authority having jurisdiction to identify each foam plastic insulation board.

2.02 ACCESS DOORS

A. Manufacturers:

1. J.L. Industries (Activar Construction Products Group, Inc.).
2. Or equal.

B. Physical Characteristics:

1. Sustainable Material Requirements: Recycled Content of Steel Products: Provide products with a minimum combined recycled content of 75 percent and a minimum post-consumer recycled content of 55 percent.
2. Door and Frame:
 - a. Gypsum Wallboard Locations: 18-gauge minimum galvanized steel door with one-piece, 16-gauge galvanized steel frame with 3/4-inch minimum exposed flange to cover edge of wall finish.
3. Size: As shown on the Drawings. If no size indicated, provide smallest standard size permitting ready access and removal of working parts, but not less than 12 inches square.
4. Finish: Gypsum Wallboard Locations: Primed finish.

C. Functional Characteristics:

1. Manufactured Unit: Access doors and frames with anchors to suit wall conditions.
 - a. Style:
 - 1) Gypsum Wallboard Locations: Flush access panel with 7/8-inch recessed door.
2. Locks:
 - a. Interior Use: Flush screwdriver operated.

D. Performance Characteristics: None.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install special doors in accordance with the manufacturer's recommendations and printed instructions.

- B. Provide pushbutton operators inside doors.
- C. Adjust doors for smooth, satisfactory operation.

3.02 OVERHEAD DOOR INSTALLATION

- A. Use anchorage devices to securely fasten assembly to wall construction and building framing without distortion or stress.
- B. Securely and rigidly brace components suspended from structure.
- C. Fit and align assembly including hardware; level and plumb, to provide smooth operation.
- D. Complete wiring from disconnect to unit components and from fire alarm system to door operator.
- E. Coordinate installation of sealants and backing materials at frame perimeter as specified in Section 07 92 00, Joint Sealants.
- F. Install perimeter trim and closures.
- G. Tolerances:
 - 1. Maintain dimensional tolerances and alignment with adjacent Work.
 - 2. Maximum Variation from Plumb: 1/16 inch.
 - 3. Maximum Variation from Level: 1/16 inch.
 - 4. Longitudinal or Diagonal Warp: Plus or minus 1/8 inch per 10 feet (3 mm per 3 m) straight edge.
- H. Adjusting:
 - 1. Adjust door, hardware, and operating assemblies for smooth and noiseless operation.
 - 2. Test smoke activated assemblies for proper activation.

3.03 ACCESS DOOR INSTALLATION

- A. Install access panels at equipment requiring adjustment, access or servicing concealed within wall, furred spaces, or ceilings.

3.04 PRIME COAT TOUCHUP

A. Damaged Prime Coat:

1. Remove rust.
2. Sand smooth.
3. Use same primer as shop.
4. Touch up so it is not obvious.

3.05 PROTECTION

- #### A. Protect installed doors against damage from other construction work.

3.06 SCHEDULE

- #### A. For tabulation of overhead coiling door and frame characteristics, such as size, type, detail, and finish hardware requirements, see Door and Hardware Schedule on the Drawings.

END OF SECTION

