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# SECTION 08360 [08 36 00] SECTIONAL OVERHEAD DOORS MODEL 422 INSULATED SECTIONAL STEEL DOORS

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### PART 1 GENERAL

# 1.1 SECTION INCLUDES

- A. Insulated Sectional Overhead Doors.
- B. Electric Operators and Controls.
- C. Operating Hardware, tracks, and support.

# 1.2 RELATED SECTIONS

- A. Section 03300 Cast-In-Place Concrete.
- B. Section 04810 Concrete Unit Masonry.
- C. Section 05500 Metal Fabrications.
- D. Section 06114 Wood Framing.
- E. Section 07900 Joint Sealants.
- F. Section 08710 Door Hardware.
- G. Section 09900 Paints and Coatings.
- H. Section 11150 Parking Control Equipment.
- I. Section 16130 Raceway and Boxes.
- Section 16150 Common Work Results for Electrical.

## 1.3 REFERENCES

A. ANSI/DASMA 102 - American National Standard Specifications for Sectional Overhead Type Doors.

## 1.4 DESIGN / PERFORMANCE REQUIREMENTS

- A. Wiring Connections: Requirements for electrical characteristics.
  - 1. 115 volts, single phase, 60 Hz.
  - 2. 230 volts, single phase, 60 Hz.
  - 3. 230 volts, three phase, 60 Hz.
  - 4. 460 volts, three phase, 60 Hz.
- B. Single-Source Responsibility: Provide doors, tracks, motors, and accessories from one manufacturer for each type of door. Provide secondary components from source acceptable to manufacturer of primary components.

## 1.5 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Manufacturer's data sheets on each product to be used, including:
  - 1. Preparation instructions and recommendations.
  - 2. Storage and handling requirements and recommendations.
  - Installation methods.
- C. Shop Drawings: Indicate plans and elevations including opening dimensions and required tolerances, connection details, anchorage spacing, hardware locations, and installation details.
- D. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- E. Operation and Maintenance Data.

## 1.6 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with minimum five years documented experience.
- B. Installer Qualifications: Authorized representative of the manufacturer with minimum five years documented experience.
- C. Products Requiring Electrical Connection: Listed and classified by Underwriters Laboratories, Inc. acceptable to authority having jurisdiction as suitable for purpose specified.

# 1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store products in manufacturer's unopened labeled packaging until ready for installation.
- B. Protect materials from exposure to moisture until ready for installation.
- C. Store materials in a dry, ventilated weathertight location.

#### 1.8 PROJECT CONDITIONS

A. Pre-Installation Conference: Convene a pre-installation conference just prior to commencement of field operations, to establish procedures to maintain optimum working conditions and to coordinate this work with related and adjacent work.

# 1.9 WARRANTY

## PART 2 PRODUCTS

#### 2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Overhead Door Corporation, 2501 S. State Hwy. 121, Suite 200, Lewisville, TX 75067. ASD. Tel. Toll Free: (800) 275-3290. Phone: (469) 549-7100. Fax: (972) 906-1499. Web Site: <a href="www.overheaddoor.com">www.overheaddoor.com</a>. E-mail: <a href="mailto:info@overheaddoor.com">info@overheaddoor.com</a>.
- B. Substitutions: Not permitted.
- Requests for substitutions will be considered in accordance with provisions of Section 01600.

#### 2.2 INSULATED SECTIONAL OVERHEAD DOORS

- A. Insulated Steel Sectional Overhead Doors: Model 422 Insulated Steel Doors by Overhead Door Corporation. Units shall have the following characteristics:
  - 1. Door Assembly: Insulated steel door assembly with rabbeted meeting rails to provide full-width interlocking structural rigidity.
    - a. Panel Thickness: 2 inches (51 mm).
    - Exterior Surface: Ribbed.
    - c. Exterior Steel: 20 gauge, hot-dip galvanized.
    - d. Back Cover:
      - 1) 26 gauge steel.
      - 2) Poly-Backed.
      - 3) High Impact Polystyrene Back cover.
    - e. Center and End Stiles: 16 gauge steel.
    - f. Spring Counterbalance: Sized to weight of the door, with a helically wound, oil tempered torsion spring mounted on a steel shaft; cable drum of diecast aluminum with high strength galvanized aircraft cable. Sized with a minimum 7 to 1 safety factor.
      - 1) Standard cycle spring: 10,000 cycles.
      - 2) High cycle spring: 25,000 cycles.
      - 3) High cycle spring: 50,000 cycles.
      - 4) High cycle spring: 75,000 cycles.
      - 5) High cycle spring: 100,000 cycles.
    - g. Insulation: Polystyrene.
    - h. Thermal Values:
      - 1) Polystyrene Calculated section R-value of 7.35.
    - i. Partial Glazing of Steel Panels:
      - 1) Insulated double strength glass, 24 inch by 7 inch (610 mm by 178 mm) window.
      - 2) Insulated tempered glass, 24 inch by 7 inch (610 mm by 178 mm) window.
    - j. Full Glazed Aluminum Sash Panels:
      - 1) 1/8 inch (3 mm) Acrylic glazing.
      - 2) 1/4 inch (6 mm) Acrylic glazing.
      - 3) 1/8 inch (3 mm) Polycarbonate glazing.
      - 4) 1/4 inch (6 mm) Polycarbonate glazing.
      - 5) 1/2 inch (12.5 mm) Polycarbonate glazing.
      - 6) 1/8 inch (3 mm) Tempered Glass.
      - 7) 1/4 inch (6 mm) Tempered Glass.

- 8) 1/2 inch (12.5 mm) Tempered Glass.
- 9) 1/4 inch (6 mm) Wire Glass.
- 10) 1/2 inch (12.5 mm) Insulating Glass.
- 11) 1/8 inch (3 mm) Double strength glass.
- 2. Finish and Color: Two coat baked-on polyester with white exterior and white interior color.
- Wind Load Design: Design as calculated in accordance with applicable code as follows:
  - a. Design pressure of \_\_\_\_\_ lb/sq ft (\_\_\_\_\_kPa).
  - b. Provide to meet Florida Building Code Product Approval #FL 11734 Non-Impact.
- 4. Hardware: Galvanized steel hinges and fixtures. Ball bearing rollers with hardened steel races.
- 5. Lock:
  - a. Interior mounted slide lock.
  - b. Interior mounted slide lock with interlock switch for automatic operator.
  - c. Keyed lock.
  - d. Keyed lock with interlock switch for automatic operator.
  - e. Locking mechanism designed to maintain security for exterior while permitting break out when impacted from the inside.
- 6. Weatherstripping:
  - Flexible bulb-type strip at bottom section.
  - b. Flexible Jamb seals.
  - c. Flexible Header seal.
- 7. Track: Provide track as recommended by manufacturer to suit loading required and clearances available.
  - Size:
    - 1) 2 inch (51 mm).
    - 2) 3 inch (76 mm).
  - b. Type:
    - 1) Standard lift.
    - 2) Vertical lift.
    - 3) High lift.
    - 4) Low headroom.
    - 5) Follow roof slope.
- 8. Manual Operation: Pull rope.
- 9. Manual Operation: Chain hoist.
- 10. Electric Motor Operation: Provide UL listed electric operator, size and type as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second. Operator shall meet UL325/2010 requirements for continuous monitoring of safety devices.
  - a. Entrapment Protection: Required for momentary contact, includes radio control operation.
    - 1) Pneumatic sensing edge up to 18 feet (5.5 m) wide. Constant contact only complying with UL 325/2010.
    - 2) Electric sensing edge monitored to meet UL 325/2010.
    - 3) Photoelectric sensors monitored to meet UL 325/2010.
  - b. Operator Controls:
    - 1) Push-button operated control stations with open, close, and stop buttons.
    - 2) Key operated control stations with open, close, and stop buttons.
    - 3) Push-button and key operated control stations with open, close, and stop buttons.
    - 4) Flush mounting.
    - 5) Surface mounting.
    - 6) Interior location.

- 7) Exterior location.
- 8) Both interior and exterior location.
- c. Special Operation:
  - 1) Pull switch.
  - 2) Vehicle detector operation.
  - 3) Radio control operation.
  - 4) Card reader control.
  - 5) Photocell operation.
  - 6) Door timer operation.
  - 7) Commercial light package.
  - 8) Explosion and dust ignition proof control wiring.

### PART 3 EXECUTION

#### 3.1 EXAMINATION

- A. Do not begin installation until openings have been properly prepared.
- B. Verify wall openings are ready to receive work and opening dimensions and tolerances are within specified limits.
- C. Verify electric power is available and of correct characteristics.
- D. If preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

#### 3.2 PREPARATION

- A. Clean adjacent surfaces thoroughly prior to installation.
- B. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

## 3.3 INSTALLATION

- A. Install overhead doors and track in accordance with approved shop drawings and the manufacturer's printed instructions.
- B. Coordinate installation with adjacent work to ensure proper clearances and allow for maintenance.
- Anchor assembly to wall construction and building framing without distortion or stress.
- D. Securely brace door tracks suspended from structure. Secure tracks to structural members only.
- E. Fit and align door assembly including hardware.
- F. Coordinate installation of electrical service. Complete power and control wiring from disconnect to unit components.

## 3.4 CLEANING AND ADJUSTING

A. Adjust door assembly to smooth operation and in full contact with weatherstripping.

- B. Clean doors, frames, glass, and polycarbonate according to manufacturer's instructions.
- C. Remove temporary labels and visible markings. Do not remove polycarbonate care and maintenance label required to maintain warranty.

# 3.5 PROTECTION

- A. Do not permit construction traffic through overhead door openings after adjustment and cleaning.
- B. Protect installed products until completion of project.
- C. Touch-up, damaged coatings and finishes and repair minor damage before Substantial Completion.

**END OF SECTION**