

SECTION 08330
OVERHEAD COILING DOORS

GENERAL

1.01 SUMMARY

- A. This section includes: Manual operated Full Weather Sealed Rolling Service Door.
 - 1. Cycle life: Design doors of standard construction for normal use of 50,000 cycles standard.
 - 2. Design doors to withstand a 120 mph wind loading pressure.
- B. Related Sections: Related to this section, but not limited to, the following:
 - 1. Section 01660 – Materials and Equipment
 - 2. Section 04200 – Unit Masonry
 - 3. Section 05120 – Structural Steel
 - 4. Section 06100 – Rough Carpentry
 - 5. Section 08710 – Door Hardware

1.02 REFERENCES

- A. ASTM A 653/A 653M – Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process
- B. ASTM A 36 – Standard Specification for Carbon Structural Steel, Hot Rolled Steel
- C. ASTM A 123 – Standard Specification for Zinc (Hot-Dip Galvanized) Coatings on Iron and Steel Products
- D. ASTM A 312 – Standard Specification for Seamless, Welded, and Heavily Cold Worked Austenitic Stainless Steel Pipes
- E. ASTM A 240 – Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications
- F. ASTM A 276 – Standard Specification for Stainless Steel Bars and Shapes

1.03 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide manufacturer's standard details and catalog data. Provide installation instructions.
- C. Shop Drawings: Furnish shop drawings for architect's approval. Include elevation, sections, and details indicating dimensions, materials, finishes, conditions for anchorage and support of each door.
- D. Submit manufacturer's recommended operation, troubleshooting, and maintenance instructions.

1.04 QUALITY ASSURANCE

- A. Manufacturer: Rolling doors shall be manufactured by a firm with a minimum of five years experience.
- B. Single-Source Responsibility: Manufacturer shall provide doors, tracks, motors, and accessories for each type of door. Secondary components shall come from a source acceptable to the manufacturer of the primary components.

1.05 DELIVERY, STORAGE, AND HANDLING

- A. Deliver materials in original packaging supplied by manufacturer with intact labels. Store materials away from harmful environmental conditions and construction.

1.06 WARRANTY

- A. Door Warranty: Provide one year written warranty from date of installation against deficiencies due to defects in materials or workmanship. Installer agrees to repair or replace any defects in materials or workmanship.
- B. Project Warranty: Refer to Conditions of the Contract for project warranty provisions.

PART 2 - PRODUCTS

2.01 MANUFACTURER

- A. Manufacturer: Alpine Overhead Doors, Inc.; 8 Hulse Road Suite 1S, East Setauket, NY 11733. Telephone 800-257-4634 or 631-473-9300. Fax 631-642-0800.
- B. Model: WIND-TITE® Weather Sealed Rolling Service Door
- C. The following equal coiling door units are approved:
 - 1. Cornell Iron Works
 - 2. The Cookson Company
 - 3. Overhead Door Corporation
 - 4. Kinnear Division
 - 5. Atlas Door Corporation

2.02 MATERIALS

- A. Curtain:
 - 1. Slats: Constructed of interlocking, roll-formed 2 ¾" flat slats.
 - a) Material:
 - i) Galvanized steel, G90 coating exterior (G60 interior), Structural Quality Grade C, as per ASTM A 653/ A 653 M
Finish: Galvanized baked enamel. Minimum coating conforming with Coating Designation G-01 is required.
 - b) Gauge:
 - i) Galvanized: Minimum 22 gauge as manufacturer standard.
 - 2. Endlocks and Windlocks:
 - a) Ductile cast iron, hot-dip galvanized endlocks/windlocks riveted to ends of each slat to prevent lateral movement and to limit slat deflection and bending stress. Furnish windlocks based on windload specifications. Windlocks increase resistance to curtain jamming.
 - 3. Bottom Bar: (Match to slat material)
 - a) Two roll formed steel angles, which extend into guides, designed to reinforce curtain bottom. Equip with vinyl weatherstrip.
 - i) Galvanized Steel as per ASTM A 653/ A 653 M
Finish: Gray shop prime baked enamel
- B. Guides:
 - 1. Guides shall be designed using structural angles with a minimum thickness of 3/16", minimum 1 ¼" slotted connections, and removable bellmouth curtain stops to allow

for curtain maintenance without removal of guides. Bellmouth stops shall be flush with guide groove. Guides shall be fastened with minimum 3/8" bolts at minimum 24" o.c. Equip with vinyl weather seals.

a) Material:

- i) ASTM A 36 Carbon Structural Steel

Finish: Gray shop prime coat ASTM A 123 galvanized.

C. Door Support Brackets and Mounting Plates:

1. Steel plate not less than 1/4" thick. Provide ball bearings at rotating support points. Bolt plates to wall mounting angles with minimum 1/2" fasteners. Plate supports counterbalance assembly and forms end enclosures.

a) Material:

- i) ASTM A 36 Carbon Steel:

Finish: Gray shop prime coat ASTM A 123 galvanized

D. Counterbalance Assembly: Torsion

1. Counterbalance assembly: Steel pipe barrel of a size capable of carrying a curtain load with a maximum deflection of 0.03" per foot of door width. Heat-treated helical torsion springs encased in a steel pipe and designed to include an overload factor of 25% to ensure minimum effort to operate. Sealed and prelubricated high speed ball bearing at rotating support points. Torsion spring charge wheel for applying spring torque and for future adjustments.

a) Material:

- i) ASTM A 36 Carbon Structural Steel

Finish: Gray shop prime coat

E. Hood:

1. 24 gauge steel. Formed to fit the contour of the end brackets with reinforced top and bottom edges. Equip with neoprene air baffle.

2. Shape: Hexagon

3. Material:

- a) Galvanized Steel as per ASTM A 653/ A 653 M

Finish: Baked enamel paint

4. Hood Baffle: Neoprene air baffle to prevent infiltration through header.

F. Locking:

1. Slide locks: Provide padlockable slide locks for latching and locking door on coil side bottom bar at each jamb extending into slots in guides.

2. Manual chain hoist: Provide padlockable chain keeper on guide.

2.03 OPERATION:

A. Opening/Closing: Manual hand chain

B. Manual Hand Chain:

1. Provide chain hoist operator with endless steel chain, chain pocket wheel and guard, geared reduction unit, and chain keeper secured to guide.

2.04 MOUNTING:

1. Interior face mounted on prepared opening.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Verify that dimensions are correct and project conditions are in accordance with manufacturer's installation instructions; do not proceed with installation until unacceptable conditions have been corrected.

3.02 INSTALLATION

- A. Install units in accordance with manufacturer's instructions.
- B. Ensure that units are installed plumb and true, free of warp or twist, and within tolerances specified by manufacturer for smooth operation.

3.03 FIELD TESTING

- A. Test doors for regular operation.

3.04 DEMONSTRATION

- A. Instruct the Owner's personnel in correct operation and maintenance of units.

3.05 ADJUST AND CLEAN

- A. Clean units in accordance with manufacturer's instructions.
- B. Restore slight blemishes in finishes in accordance with manufacturer's instructions to match original finish. Remove and provide new units where repairs are not acceptable to the Architect.