



SECTION 08330 [08 33 00]

ROLLING STEEL DOORS

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**** NOTE TO SPECIFIER ** Wayne Dalton; Rolling steel door products.**

This section is based on the products of Wayne Dalton, which is located at:
2501 S. State Highway 121 Business, Suite 200
Lewisville, TX 75067
Phone: (800) 827-3667
Web Site: www.wayne-dalton.com
Email: info@wayne-dalton.com.
[click Here] for additional information.

Wayne Dalton Rolling Doors have a long history of excellence in the design and construction of doors that have met and often exceeded the needs and expectations of even the most critical projects.

With numerous innovations created and experience acquired over the years, Wayne Dalton continues to lead all other manufacturers with both standard and custom-made doors from a variety of materials and colors to meet almost any need.

So whether it's the over-sized Model 800 rolling doors, protective FireStar rolling fire doors, or secure rolling grilles, you can feel confident that with Wayne Dalton's many years of knowledge and experience, you will get the best possible solution for your building application needs.

PART 1 GENERAL

1.1 SECTION INCLUDES

**** NOTE TO SPECIFIER ** Delete items below not required for project.**

- A. Rolling steel doors.
- B. Rolling steel springless high cycle doors.
- C. Rolling steel advanced performance service doors.
- D. Rolling steel fire doors.
- E. Overhead Coiling Security Shutters.

1.2 RELATED SECTIONS

**** NOTE TO SPECIFIER ** Delete any sections below not relevant to this project; add others as required.**

- A. Section 05500 - Metal Fabrications: Support framing and framed opening.
- B. Section 06200 - Finish Carpentry: Wood jamb and head trim.
- C. Section 08710 - Door Hardware: Product Requirements for cylinder core and keys.
- D. Section 09900 - Painting: Field applied finish.
- E. Section 16130 - Raceway and Boxes: Conduit from electric circuit to door operator and from door operator to control station.
- F. Section 16150 - Wiring Connections: Power to disconnect.

1.3 REFERENCES

**** NOTE TO SPECIFIER ** Delete references from the list below that are not actually required by the text of the edited section.**

- A. ANSI/DASMA 108 - American National Standards Institute Standard Method For Testing Sectional Garage Doors And Rolling Doors: Determination Of Structural Performance Under Uniform Static Air Pressure Difference.
- B. ANSI/DASMA 203 - American National Standards Institute Specifications for non-rated fire rolling doors published by Door & Access Systems Manufacturers Association International.
- C. ASTM A 123 - Zinc hot-dipped galvanized] coatings on iron and steel products.
- D. ASTM A 229 - Steel wire, oil-tempered for mechanical springs.
- E. ASTM A 653 - Steel sheet, zinc-coated galvanized by the hot-dipped process, commercial quality.
- F. ASTM E 330 - Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
- G. ASTM E 413 - Classification for Rating Sound Insulation

1.4 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.
 - 3. Installation methods.
- C. Shop Drawings: Include detailed plans, elevations, details of framing members, anchoring methods, required clearances, hardware, and accessories. Include relationship with adjacent construction.

**** NOTE TO SPECIFIER ** Delete the following paragraphs if LEED is not applicable.**

- D. LEED Submittals: Provide documentation of how the requirements of Credit will be met:
 - 1. List of proposed materials with recycled content. Indicate post-consumer recycled content and pre-consumer recycled content for each product having recycled content.
 - 2. Product data and certification letter indicating percentages by weight of post-consumer and pre-consumer recycled content for products having recycled content.

**** NOTE TO SPECIFIER ** Delete selection samples if colors have already been selected.**

- E. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
- F. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
- G. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
- H. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking, adjustment and lubrication of components.

1.5 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in performing Work of this section with a minimum of five years experience in the fabrication and installation of security closures.
- B. Installer Qualifications: Installer Qualifications: Company specializing in performing Work of this section with minimum three years and an authorized Wayne Dalton installer.

**** NOTE TO SPECIFIER ** Include a mock-up if the project size and/or quality warrant taking such a precaution. The following is one example of how a mock-up on a large project might be specified. When deciding on the extent of the mock-up, consider all the major different types of work on the project.**

- C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Finish areas designated by Architect.
 - 2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 3. Refinish mock-up area as required to produce acceptable work.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Store products in manufacturer's unopened packaging with seals and labels intact until ready for installation.
- B. Store materials off the ground in a dry, warm, ventilated weathertight location.

1.7 SEQUENCING

- A. Ensure that locating templates and other information required for installation of products of this section are furnished to affected trades in time to prevent interruption of construction progress.
- B. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.8 PROJECT CONDITIONS

- A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

1.9 WARRANTY

**** NOTE TO SPECIFIER ** Include the following warranty paragraph for Models 800 HC, 800C HC rolling service doors. Delete if not applicable.**

- A. Warranty: Manufacturer's limited door and operator system, to be free from defects in materials and workmanship for 3 years or 500,000 cycles, whichever occurs first.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Wayne Dalton; 2501 S. State Highway 121 Business, Suite 200, Lewisville, TX 75067. ASD. Phone: (800) 827-3667; Web Site: www.wayne-dalton.com. Email: info@wayne-dalton.com.

**** NOTE TO SPECIFIER ** Delete one of the following two paragraphs; coordinate with requirements of Division 1 section on product options and substitutions.**

- B. Substitutions: Not permitted.
- C. Requests for substitutions will be considered in accordance with provisions of Section 01600.

**** NOTE TO SPECIFIER ** Select the doors required from the following paragraphs and delete those not required.**

2.2 SPRINGLESS HIGH CYCLE ROLLING SERVICE DOORS

**** NOTE TO SPECIFIER ** Wayne Dalton Model 800 HC Springless High Cycle Rolling Service Door System is designed for exterior and interior openings that require a high-cycle door. Available in a maximum height of 20 feet and a maximum width of 20 feet. Standard windload design 20 PSF. Note that windload design does not apply when optional guide wear strips are selected. Windload ratings up to and including Miami-Dade County and/or FBC are available. Contact the manufacturer for additional information.**

- A. Wayne Dalton Model 800C HC Insulated Springless High Cycle Rolling Service Door:
 - 1. Description:
 - a. Maximum Width: 20 feet
 - b. Maximum Height: 20 feet

- c. ASTM E 413 Sound transmission class acoustical performance value = STC 22.
- 2. Curtain: composed of interlocking roll-formed slats.
 - a. Slat Profiles/Material:

**** NOTE TO SPECIFIER ** Select the slat material required from the following paragraphs and delete those not required.**

- 1) No. 34 Flat-faced slat. The area between the #34 exterior slat and the back slat filled with polyurethane insulation, R-value of 7.7 (U = 0.13).
 - (a) 22-gauge galvanized steel with 24-gauge back.
 - (a) 20-gauge galvanized steel with 24-gauge back.
 - (b) 18-gauge galvanized steel with 24-gauge back.
 - (c) 22-gauge stainless steel with 24-gauge steel back.
 - (d) 20-gauge stainless steel with 24-gauge steel back.
 - (e) 16-gauge (.050 inch) B&S aluminum with 22-gauge (.025 inch) aluminum back.
- 2) Insulated Vision Lites: Provide with 5 inch by 3/4 inch uniformly spaced openings, with 1/16 inch clear plastic.
- 3) Ends of alternate slats fitted with malleable iron endlocks/windlocks.

- b. Curtain Finish:

**** NOTE TO SPECIFIER ** Select the finish and color required from the following paragraphs and delete those not required. Note that white, beige, brown is only available as 24 or 22 gauge**

- 1) Galvanized steel:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs for powder coat finish and delete those not required.**

- (a) Gray baked on primer.
- (b) White baked on primer.
- (c) Beige baked on primer.
- (d) Brown baked on primer.

**** NOTE TO SPECIFIER ** Powder coat is available in a selection of colors. Contact manufacturer for color availability.**

- (e) Powdercoat finish as selected from manufacturer's RAL color selections.
- (f) Powdercoat finish in custom color as selected.
- (g) Powder coat finish with hardening additive, ideal for high cycle applications, is available in a selection of colors. Contact manufacturer for color availability

- 2) Aluminum:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs for hood finish and delete those not required.**

- (a) Clear anodized.
- (b) Bronze anodized.

- 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain with vinyl astragal. Angle shall be:

**** NOTE TO SPECIFIER ** Select the bottom bar material required from the following paragraphs and delete those not required. Steel is standard.**

- a. Steel factory painted black.
- b. Steel with powder coat, to match curtain.
- c. Stainless steel.

- 4. Guides: Three piece structural angle guide assembly forming a slot to retain curtains in guides.

- a. Fabricated of:

**** NOTE TO SPECIFIER ** Select the assembly material required from the following paragraphs and delete those not required. Steel factory painted black is standard.**

- 1) Steel factory painted black.
- 2) Steel with powder coat, to match curtain.

**** NOTE TO SPECIFIER ** Select the following paragraph if required. Note that high usage guide wear strips to minimize wear and reduce sound are not available on doors designed for windload.**

- b. Provide with high usage guide wear strips.
 - c. Provide with integral windlock bars when size or wind loading requires.
 - d. Removable bottom bar stops.
5. Brackets: Design provides support for springless counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings. Brackets shall be black painted steel. Thickness shall be:

**** NOTE TO SPECIFIER ** Select the thickness required from the following paragraphs and delete those not required. 3/16 inch is standard unless size of door requires 1/4 inch.**

- a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
6. Door Roll: Directly driven, springless roll shall be steel tube with integral shafts, keyed on the Drive End and supported by self-aligning sealed bearings. Door shall not require any counterbalance device.
7. Hood: Hood to enclose curtain coil and counterbalance mechanism. Hood fabricated of sheet metal, flanged at top for attachment to header and flanged at bottom to provide longitudinal stiffness.

- a. Fabricate of:

**** NOTE TO SPECIFIER ** Select the hood material required from the following paragraphs and delete those not required. 24-gauge galvanized steel is standard.**

- 1) Minimum 22-gauge B&S aluminum.
- 2) Minimum 24-gauge galvanized steel.
- 3) Minimum 24-gauge stainless steel.

- b. Hood Finish:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs for hood finish and delete those not required.; Baked on primer is standard on galvanized steel hood**

- 1) Galvanized steel:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs for hood finish and delete those not required.**

- (a) Gray baked on primer.
- (a) White baked on primer.
- (b) Beige baked on primer.
- (c) Brown baked on primer.

**** NOTE TO SPECIFIER ** Powder coat is available in a selection of colors. Contact manufacturer for color availability.**

- (d) Powdercoat finish as selected from manufacturer's RAL color selections.

- (e) Powdercoat finish in custom color as selected

- 2) Aluminum:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs for hood finish and delete those not required.**

- (a) Clear anodized.
- (b) Bronze anodized.

8. Control Panel: Electronic controller with microprocessor self-diagnostics. Digital readout indicates door action, alarm conditions and fault conditions. Time delay self-close timer and non-resettable cycle counter are included. Enclosure is IP54 rated (NEMA 3 equivalent).

**** NOTE TO SPECIFIER ** Note that motor HP is dependent on the door size(s) and weight, the appropriate HP motor will be selected by plant.**

9. Motor: Direct drive, integrated gear motor/brake assembly sized for openings. Provide with a manual hand chain for operation during power outages. Operator and drive assembly is factory pre-assembled and provided with all wiring harnesses needed direct from the factory.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- a. Electrical Characteristics: 208V AC, single phase 60Hz (190-207V range) per motor/drive.
- b. Electrical Characteristics: 230V AC, single phase 60Hz (208-245V range) per motor/drive.
- c. Electrical Characteristics: 208V AC, three phase 60Hz (190-207V range) per motor/drive.
- d. Electrical Characteristics: 230V AC, three phase 60Hz (208-245V range) per motor/drive.
- e. Electrical Characteristics: 460V AC, three phase 60Hz (456-495V range) per motor/drive.
- f. Electrical Characteristics: 575V AC, three phase 60Hz per motor/drive.

**** NOTE TO SPECIFIER ** Select one of the following paragraphs; and delete the one not required.**

- g. Left hand mount.
- h. Right hand mount.
10. Safety Devices: Provide door with following safety devices:
 - a. Photoelectric sensors that cast an invisible beam across the door opening and reverses the downward motion of the door when an object enters the path of the beam.
 - b. Built-in (to motor assembly) brake mechanism eliminates uncontrolled curtain travel independent of other safeties.
 - c. Electric Sensing Edge (option, not standard).
 - d. Second set of photoelectric sensors (option, not standard).
11. Actuators:
 - a. One Open/Close/Stop push button station incorporated into Control Panel.

**** NOTE TO SPECIFIER ** Select from the following paragraphs optional equipment as required; and delete if not required. Considerable thought should be given to the choice of actuators based on the type of traffic and traffic flow through the opening. Contact the manufacturer for additional information.**

- b. Loop detectors.
- c. Radio control.
- d. Interior Push buttons.
- e. Exterior Push buttons.
- f. Interior Key switch.
- g. Exterior Key switch.
- h. Motion detectors.
- i. Warning light.

12. Windload Design:

**** NOTE TO SPECIFIER ** Select one of the following paragraphs and delete the one not required. Standard windload is 20 PSF. Note that if optional guide wear strips are used the windload warranty does not apply. Contact the manufacturer for current data on Miami-Dade County and/or FBC Certification.**

- a. Standard windload of 20 PSF.
- b. Miami-Dade County NOA ____.
- c. FBC certification FL# ____.

13. Mounting:
 - a. Steel jambs.
 - b. Wood jambs.
 - c. Masonry jambs.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Do not begin installation until substrates have been properly prepared.
- B. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
- C. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

- A. Clean 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 in accordance with manufacturer's instructions.
- B. Install door complete with necessary hardware, jamb and head mold strips, anchors, inserts, hangers, and equipment supports in accordance with final shop drawings, manufacturers instructions, and as specified herein.
- C. Fit, align and adjust rolling door assemblies level and plumb for smooth operation.
- D. Upon completion of final installation, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion and fitting for entire perimeter.

3.4 ADJUSTING

- A. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
- B. Adjust hardware and operating assemblies for smooth and noiseless operation.

3.5 CLEANING

- A. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
- B. Remove labels and visible markings.
- C. Touch-up, repair or replace damaged products before Substantial Completion.

3.6 PROTECTION

- A. Protect installed products until completion of project.
- B. Touch-up, repair or replace damaged products before Substantial Completion.

3.7 SCHEDULES

**** NOTE TO SPECIFIER ** Retain Paragraph below if required to suit project requirements. Identify products by name on the Drawings or use this paragraph to define the location of each type of material to be used. The following are some examples of schedule references. Edit as required to suit project or delete and identify products on the Drawings.**

- A. :
 - 1.
 - 2.
 - 3.
- B. :
 - 1.
 - 2.
 - 3.

END OF SECTION