



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](http://www.wayne-dalton.com)  
Email: [info@wayne-dalton.com](mailto: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 900, 800, 800C, 700 or 700C rolling service doors with Genie GCL-MH, MJ, J, H, or GH commercial door operators provided together as a System. Delete if not applicable.**

- A. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 3 years or 20,000 cycles, whichever occurs first.

**\*\* NOTE TO SPECIFIER \*\* Include the following warranty paragraph for Model 900, 926, 800, 800C, 700, and 700C rolling service doors and Model 523 shutters not provided as a system with operators. Delete if not applicable.**

- B. Warranty: Manufacturer's limited door system warranty for 2 years for all parts and components.

## 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](http://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 ROLLING STEEL FIRE DOORS

- A. Wayne Dalton FireStar 700C Insulated Rolling Steel Fire Door:
  - 1. Description:
    - a. Maximum Width: 24 feet

- b. Maximum Height: 24 feet
- c. Fire Labeled: Yes

**\*\* NOTE TO SPECIFIER \*\* Rating available upon request. Select and complete the following paragraph if required and delete if not required.**

- d. Windload: Windload minimum \_\_\_ psf per DASMA 108-2012 and as required by local codes.
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. Note that 22-gauge galvanized steel front and 24-gauge backer is standard.**

- 1) No. 34 Flat-faced slat. Area between the #34 exterior slat and the back slat filled with non-combustible mineral wool insulation with 0 flame spread, 0 smoke development, providing an R-value of 5 (U = 0.2).
    - (a) 22-gauge galvanized steel front and 24-gauge backer.
    - (b) 20-gauge galvanized steel front and 24-gauge backer.
    - (c) 18-gauge galvanized steel front and 24-gauge backer.
    - (d) 22-gauge stainless steel slats with 24-gauge backer.
    - (e) 20-gauge stainless steel slats with 24-gauge backer.
    - (f) 18-gauge stainless steel slats with 24-gauge backer.
  - b. Ends of alternate slats fitted with metal endlocks/windlocks.
3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. 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.
  - b. Stainless steel.
4. Guides:
- a. Three structural angle guide assembly fabricated of:

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

- 1) Steel.
  - 2) Stainless steel.
  - b. Provide with perimeter brush seals to reduce smoke/air infiltration around door opening
5. Brackets: Design to enclose ends of coil and provide support for counterbalance pipe at each end. Fabricate of steel plates, with permanently sealed ball bearings. Thickness shall be:

**\*\* NOTE TO SPECIFIER \*\* Select the thickness required from the following paragraphs and delete those not required. 3/16 inch is standard.**

- a. 3/16 inch minimum.
  - b. 1/4 inch minimum.
6. Counterbalance: Curtain to be coiled on a pipe of sufficient size to carry door load with deflection not to exceed 0.033 inch per foot of door span. Curtain to be correctly balanced by helical springs, oil tempered torsion type. Cast iron barrel plugs will be used to anchor springs to tension shaft and pipe.
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. Provide all FM hoods with a steel hood baffle. Fabricate of:

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

- a. Minimum 24-gauge galvanized steel.

- b. Minimum 24-gauge stainless steel.
- 8. Finish: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms. Guides and bracket plates will be coated with a flat black prime paint.

**\*\* 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 22-gauge. Custom colors are available from 180 colors.**

- a. Galvanized Steel:
  - 1) Gray baked on primer.
  - 2) White baked on primer.
  - 3) Beige baked on primer.
  - 4) Brown baked on primer.
  - 5) Powdercoat finish as selected from manufacturer's RAL color selections.
  - 6) Powdercoat finish in custom color as selected.
- b. Stainless Steel finish.
  - 1) #4 finish.

- 9. Operation: Door will be operated by means of:

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

- a. Chain hoist.
  - b. Awning crank.
  - c. Motor operation.
  - d. Motor operation with electrical sensing edge attached to bottom bar to stop and reverse door when it contacts an object during the closing cycle.
  - e. Motor operation with pneumatic sensing edge attached to bottom bar to stop and reverse door when it contacts an object during the closing cycle.
- 10. Governor: If required by the size for chain hoist or motor driven doors, provide a viscous governor to regulate the rate of descent of door in a quiet manner. Use an engagement type that is not engaged during normal door operation, but after cable release, will retard the speed during automatic door closure to under 24 inches per second and not less than 6 inches per second per NFPA 80.

- 11. Label: Provide rolling fire doors certified with the following listing.

**\*\* NOTE TO SPECIFIER \*\* Select one or more of the following paragraphs to suit the projects requirements for the door size(s) required and delete the ones not required. Note that UL Labels are standard and FM labels are optional.**

- a. UL 3-Hour Class A Label for installation on masonry or steel jamb walls (face mounted). Door may be welded to the face of steel jambs.
  - b. ULC 3-Hour Class A Label for installation on masonry or steel jamb walls (face mounted). Door may be welded to the face of steel jambs.
  - c. FM 3-Hour Class A Label for masonry or concrete walls, steel wall jambs or with steel tubes set against fire walls (masonry or non-masonry construction).
  - d. UL 1-1/2-Hour Class B Label for installation in non-masonry walls, face mounted or between jambs.
  - e. ULC 1-1/2-Hour Class B Label for installation in non-masonry walls, face mounted or between jambs.
  - f. FM 3/4-Hour Class B Label when installed on fire-rated gypsum dry walls.
- 12. Mounting:
    - a. Steel jambs.

- b. Fire Rated wood jambs.
- c. Fire Rated drywall over minimum 16-gauge steel stud jambs.
- d. Masonry jambs.

### 2.3 OVERHEAD COILING SECURITY SHUTTERS

**\*\* NOTE TO SPECIFIER \*\* Security Shutter Model 523 is not windload rated. This door is ideal for interior applications or exterior applications where windload is not required. Available in a maximum height of 14 feet and a maximum width of 20 feet. Contact the manufacturer for additional information.**

A. Aluminum Security Shutter: Wayne Dalton, Model 523.

1. Wall Mounting Condition:

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

- a. Face-of-wall mounting.
  - b. Between jambs mounting.
2. Curtain: Interlocking extruded aluminum slats constructed of .05 inch aluminum. Nickel plated, steel screws and end locks to retain curtain within guides and prevent lateral movement. Over 16 feet wide will come standard with plastic roller retainers to strengthen curtain.

3. Fenestration/Perforation:

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

- a. Open fenestration 1 inch by 1 inch; 0.5 inch uniformly spaced openings; full curtain.
- b. Perforation full curtain.
- c. Partial open fenestration, 1 inch by 1 inch; 0.5 inch uniformly spaced openings; Height of curtain segment to be fenestrated as indicated on the Drawings.
- d. Partial perforation, height of curtain segment to be perforated as indicated on the Drawings.

4. Finish:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following for powder coat and delete the ones not required. Powder coat finish is standard in the four colors listed.**

- a. Powder Coat:
  - 1) Silver powder coat to match look of clear anodized aluminum.
  - 2) Bronze powder coat to match look of bronze anodized.
  - 3) White.
  - 4) Almond.
  - 5) Powdercoat color as selected by the Architect.

5. Bottom Bar and Locking:

**\*\* NOTE TO SPECIFIER \*\* Select from the following paragraphs and delete the ones not required.**

- a. Aluminum compact bottom bar with vinyl bulb seal with coil side left and right slide locks. Powder coat to match curtain color selection. (standard).
- b. Aluminum compact bottom bar with vinyl bulb seal with padlock-able non-coil side left and right slide locks. Powder coat to match curtain color selection.
- c. Tubular aluminum cylinder locking bottom bar with weatherstrip. Requires 1.5 inch by 3 inch wall tubes for face of wall mount.
- d. Locking doors with tube motor shall be provided with interlock micro switch.

- e. Aluminum compact bottom bar with vinyl bulb seal; non-locking.
- f. Step angle attachment option.
- 6. Guides: Extruded aluminum channels with continuous PVC wear strips.  
Powder coat: color to match curtain.
- 7. Brackets: Steel plate to support counterbalance, curtain and hood. Powder coat to match curtain color selection.
- 8. Hood: aluminum two-piece square hood silver powder coated to match curtain color selection. Provided with intermediate support brackets as required.
- 9. Hood with brackets; box size to match manufacturer's recommendation on housing size based on door height.
- 10. Counterbalance: Steel barrel housing counterbalance spring assembly.
- 11. Operation:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following operation paragraphs and delete the ones not required.**

- a. Manual push up.
- b. Crank operation.
- c. Electric tube motor with crank for emergency egress manual override.

**\*\* NOTE TO SPECIFIER \*\* Include the following paragraph if electric motor operation is required and delete if not required.**

- 12. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer:
  - a. Operator Controls:
  - b. Double throw hard wired wall switch.

**\*\* NOTE TO SPECIFIER \*\* Security Shutter System Model 523RX is a UL 325 listed security shutter door and operator system to provide added security at the driveway access from the street or entrance to residential property, preventing unwanted access. This door system is not wind load rated. This door is ideal for residential exterior applications where wind load is not required. Available in a maximum height up to 12 feet and a maximum width up to 16 feet. Contact the manufacturer for additional information.**

- B. Residential Exterior Security Shutter System: Wayne Dalton, Model 523RX.
  - 1. Wall Mounting Condition: Face-of-wall mounted to steel tube structure (provided by others).
  - 2. Curtain: Interlocking extruded aluminum slats constructed of .05 inch aluminum. Nickel plated, steel screws and end locks to retain curtain within guides and prevent lateral movement.
  - 3. Fenestration/Perforation:

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

- a. Open fenestration 1 inch by 1 inch; 0.5 inch uniformly spaced openings; full curtain.
  - 1) Perforation full curtain.
  - 2) Partial open fenestration, 1 inch by 1 inch; 0.5 inch uniformly spaced openings; Height of curtain segment to be fenestrated as indicated on the Drawings.
  - 3) Partial perforation, height of curtain segment to be perforated as indicated on the Drawings.
  - 4) Finish:

**\*\* NOTE TO SPECIFIER \*\* Select one of the following for powder coat and delete the ones not required. Powder coat finish is standard in the four colors listed.**

- (a) Powder Coat:
  - (1) Silver powder coat to match look of clear anodized aluminum.



- (2) Bronze powder coat to match look of bronze anodized.
- (3) White.
- (4) Almond.
- (5) Powdercoat color as selected by the Architect.

5) Bottom Bar and Locking:

**\*\* NOTE TO SPECIFIER \*\* Select from the following paragraphs and delete the ones not required.**

- (a) Tubular aluminum bottom bar with weatherseal.
- (b) Tubular aluminum bottom bar with weatherseal, with cylinder lock (interlock micro switch required).
- 6) Guides: Extruded aluminum channels with continuous PVC wear strips. Powder coat: color to match curtain.
- 7) Brackets: Steel plate to support counterbalance, curtain and hood. Powder coat to match curtain color selection.
- 8) Hood: Aluminum sloped hood to promote moisture runoff, powder coated to match curtain color selection. Provide with intermediate support brackets as required.
- 9) Counterbalance: Steel barrel housing counterbalance spring assembly.
- 10) Electric Motor Operation: Provide UL 325 listed electric operator designed for residential exterior shutter application
  - (a) Direct drive side mounted shutter opener in weather resistant enclosure.
  - (b) 115V AC single phase powered.
  - (c) Operator can be left or right hand mounted.
  - (d) DC motor with soft start and stop.
  - (e) Monitored NEMA 4X photo eyes.
  - (f) Door force detection for safety.
  - (g) Battery backup for door operation during brief power outages.
  - (h) Manual operation in the event of extended outage.
- 11) Operator Controls:
  - (a) 3-button remote with receiver and antenna included.

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

- (b) Additional remote(s).
- (c) Wireless keypad.
- (d) Push button station.

## 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.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for FireStar 700 and FireStar 700C fire doors and delete if not required.**

- B. Install rolling fire doors in accordance with the manufacturer's instructions and in accordance with the requirements of the National Fire Protection Association Standard 80 (NFPA 80).
- C. 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.
- D. Fit, align and adjust rolling door assemblies level and plumb for smooth operation.
- E. Upon completion of final installation, lubricate, test and adjust doors to operate easily, free from warp, twist or distortion and fitting for entire perimeter.

**\*\* NOTE TO SPECIFIER \*\* Select the following paragraph for FireStar 700 and FireStar 700C fire doors and delete if not required.**

### 3.4 TESTING

- A. Drop-test rolling steel fire doors in accordance with NFPA 80 and witnessed, attesting to their successful operation at the time of installation.

### 3.5 MAINTENANCE

- A. Per NFPA 80, paragraph 15-2 4.3: All horizontal or vertical sliding and rolling fire doors shall be inspected and tested annually to check for proper operation and full closure. Resetting of the release mechanism shall be done in accordance with the manufacturers instructions. A written record shall be maintained by the building owner and made available to the authority having jurisdiction.

### 3.6 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.

### 3.7 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.

### 3.8 PROTECTION

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

### 3.9 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