

Wayne Dalton® GARAGE DOORS

SECTION 08 33 00
ROLLING STEEL DOORS

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PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Rolling steel storm shelter doors.

1.2 RELATED SECTIONS

- A. Section 05 50 00 - Metal Fabrications.
- B. Section 06 20 00 - Finish Carpentry.
- C. Section 08 71 00 - Door Hardware.
- D. Section 09 90 00 - Painting and Coating.
- E. Section 26 27 16 - Electrical Cabinets and Enclosures.
- F. Section 26 05 00 - Common Work Results for Electrical.

1.3 REFERENCES

- 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
- H. ASTM F 3038 - Standard Test Method for Timed Evaluation of Forced-Entry-Resistant Systems
- I. ICC-500-2014, Standard for the Design and Construction of Storm Shelters
- J. ICC-500-2020, Standard for the Design and Construction of Storm Shelters
- K. FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms
- L. NFPA 252 - Fire Tests of Fire Door Assemblies.
- M. UL 10B - Fire Tests of Fire Door Assemblies.

1.4 SUBMITTALS

- A. Submit under provisions of Section 01 30 00 - Administrative Requirements.
- 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.
- 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.
- 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.

- 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

- A. Warranty: Manufacturer's limited door warranty for 5 years on door system materials and workmanship.
- B. Warranty: Manufacturer's limited door and operator system, except the counterbalance spring and finish, to be free from defects in materials and workmanship for 2 years or 10,000 cycles, whichever occurs first.
- C. 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 10,000 cycles, whichever occurs first.
- D. 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 10,000 cycles, whichever occurs first.

PART 2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturer: Wayne Dalton, which is located at: 2501 S. State Highway 121 Business, Suite 200; Lewisville, TX 75067; Toll Free Tel: (800) 827-3667; Email:[request info \(info@wayne-dalton.com\)](mailto:request_info@wayne-dalton.com); Web:<http://www.wayne-dalton.com>
- B. Substitutions: Not permitted.

- C. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

2.2 ROLLING STEEL STORM SHELTER DOORS

- A. Wayne Dalton Model 800F Rolling Steel Storm Shelter Door
1. Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf.
 - a. Maximum Tested Size = 16ft Width x 16ft Height
 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
 4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
 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:
 - a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
 6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
 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 with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
 8. Finish:
 - a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.
 - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
 9. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
 - a. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
 - c. Special Operation:
 - 1) Vehicle detector operation.

- 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
10. Locking:
- a. Chain keeper locks for chain hoist operation.
11. Mounting: Face of Wall.
- B. Wayne Dalton Model 800FE Rolling Steel Storm Shelter and Forced Entry rated Door.
1. Description Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf. Doors are also Forced Entry ASTM F 3038 rated for up to 30 Minutes with Ballistics Ratings that include .22 LR and .38 Special in accordance with NIJ 0108.01
 - a. Maximum Tested Size = 16ft Width x 16ft Height
 2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
 3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
 4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
 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:
 - a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
 6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
 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 with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
 8. Finish:
 - a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.
 - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
 9. Electric Motor Operation: Provide UL listed electric operator, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
 - a. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:

- 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
- c. Special Operation:
- 1) Vehicle detector operation.
 - 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
10. Locking:
- a. Chain keeper locks for chain hoist operation.
11. Mounting: Face of Wall.

C. Wayne Dalton Model 800FR Rolling Steel Storm Shelter and Fire rated Door.

1. Description: Doors are Labeled for use as a Windstorm Rated Assembly and Tested in accordance with ICC 500-2020 and are Hurricane rated for 200 psf and tested to 300 psf and Tornado rated for 250 psf. Doors are also Certified to: UL 10B, NFPA 252, CAN / ULC S104 - 4 Hour Fire Rating.
 - a. Maximum Tested Size = 16ft Width x 16ft Height
2. Curtain: Interlocking roll-formed slats with endlocks attached to each end of alternate slats to prevent lateral movement.
 - a. Slat Profiles/Material:
 - 1) Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.
 - a) 12-gauge G40 galvanized steel.
3. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
 - a. Steel.
4. Guides:
 - a. Three structural angle guide assembly fabricated of:
 - 1) Steel.
 - b. Provide with integral windlock bars and removable bottom bar stops.
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:
 - a. 3/16 inch minimum.
 - b. 1/4 inch minimum.
6. Counterbalance: Helical torsion spring type housed in a steel tube or pipe barrel, supporting the curtain with deflection limited to 0.03 inch per foot of span. Counterbalance is adjustable by means of an adjusting tension wheel.
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 with a steel hood baffle. Fabricate of:
 - a. Minimum 24-gauge galvanized steel.
8. Finish:

- a. Galvanized Steel: Powder Coat.
 - 1) PowderGuard Premium powder coat, color as selected by the Architect.
 - b. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
9. Motor Operation: FDO Electric Motor Operation: UL 325-2010: NEMA 1 enclosure, size as recommended by manufacturer to move door in either direction at not less than 2/3 foot nor more than 1 foot per second.
- a. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
 - b. Operator Controls:
 - 1) Push-button operated control stations with open, close, and stop buttons.
 - 2) Key operation with open, close, and stop controls.
 - 3) Push-button and key operated control stations with open, close, and stop buttons.
 - 4) Controls for interior location.
 - 5) Controls for exterior location.
 - 6) Controls for both interior and exterior location.
 - 7) Controls surface mounted.
 - 8) Controls flush mounted.
 - c. Special Operation:
 - 1) Vehicle detector operation.
 - 2) Radio control operation.
 - 3) Card reader control.
 - 4) Photocell operation.
 - 5) Door timer operation.
 - 6) Commercial light package.
 - 7) Explosion and dust ignition proof control wiring.
 - 8) Motor Voltage:
 - a) 115/230 single phase, 60 Hz.
 - b) 208/230 three phase,
 - c) 460 three phase;
10. Locking:
- a. Chain keeper locks for chain hoist operation.
11. Mounting: Face of Wall.

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.

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

- A. :
- B. :

END OF SECTION