SECTION 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
Toll Free Tel: (800) 827-3667
Email:[request info (info@wayne-dalton.com)](https://admin.arcat.com/users.pl?action=UserEmail&company=Wayne+Dalton&coid=36462&rep=&fax=&message=RE:%20Spec%20Question%20(08330way):%20%20&mf=)
Web:<http://www.wayne-dalton.com>
[[Click Here](https://www.arcat.com/arcatcos/cos36/arc36462.html)] 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.

1. GENERAL
	1. SECTION INCLUDES
		1. Rolling steel storm shelter doors.
	2. RELATED SECTIONS

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

* + 1. Section 05 50 00 - Metal Fabrications.
		2. Section 06 20 00 - Finish Carpentry.
		3. Section 08 71 00 - Door Hardware.
		4. Section 09 90 00 - Painting and Coating.
		5. Section 26 27 16 - Electrical Cabinets and Enclosures.
		6. Section 26 05 00 - Common Work Results for Electrical.
	1. REFERENCES

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

* + 1. 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.
		2. ANSI/DASMA 203 - American National Standards Institute Specifications for non-rated fire rolling doors published by Door & Access Systems Manufacturers Association International.
		3. ASTM A 123 - Zinc hot-dipped galvanized] coatings on iron and steel products.
		4. ASTM A 229 - Steel wire, oil-tempered for mechanical springs.
		5. ASTM A 653 - Steel sheet, zinc-coated galvanized by the hot-dipped process, commercial quality.
		6. ASTM E 330 - Structural performance of exterior windows, curtain walls, and doors by uniform static air pressure difference.
		7. ASTM E 413 - Classification for Rating Sound Insulation
		8. ASTM F 3038 - Standard Test Method for Timed Evaluation of Forced-Entry-Resistant Systems
		9. ICC-500-2014, Standard for the Design and Construction of Storm Shelters
		10. ICC-500-2020, Standard for the Design and Construction of Storm Shelters
		11. FEMA P-361, Safe Rooms for Tornadoes and Hurricanes: Guidance for Community and Residential Safe Rooms
		12. NFPA 252 - Fire Tests of Fire Door Assemblies.
		13. UL 10B - Fire Tests of Fire Door Assemblies.
	1. SUBMITTALS
		1. Submit under provisions of Section 01 30 00 - Administrative Requirements.
		2. 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.
		3. 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.

* + 1. 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.

* + 1. Selection Samples: For each finish product specified, two complete sets of color chips representing manufacturer's full range of available colors and patterns.
		2. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) long, representing actual product, color, and patterns.
		3. Manufacturer's Certificates: Certify products meet or exceed specified requirements.
		4. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic checking, adjustment and lubrication of components.
	1. QUALITY ASSURANCE
		1. 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.
		2. 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.

* + 1. 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. DELIVERY, STORAGE AND HANDLING
		1. Store products in manufacturer's unopened packaging with seals and labels intact until ready for installation.
		2. Store materials off the ground in a dry, warm, ventilated weathertight location.
	2. SEQUENCING
		1. 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.
		2. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.
	3. PROJECT CONDITIONS
		1. 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.
	4. WARRANTY
		1. Warranty: Manufacturer's limited door warranty for 5 years on door system materials and workmanship.

\*\* NOTE TO SPECIFIER \*\* Include the following warranty paragraph for Models 800F Rolling steel storm shelter doors with RSX, RMX or RHX commercial door operators provided together as a System. Delete if not applicable.

* + 1. 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.

\*\* NOTE TO SPECIFIER \*\* Include the following warranty paragraph for Models 8000FE Rolling steel Storm Shelter and Forced Entry rated doors with RSX, RMX or RHX commercial door operators provided together as a System. Delete if not applicable.

* + 1. 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.

\*\* NOTE TO SPECIFIER \*\* Include the following warranty paragraph for Models 800FR Rolling steel Storm Shelter and Fire Rated doors with RSX, RMX or RHX commercial door operators provided together as a System. Delete if not applicable.

* + 1. 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.
1. PRODUCTS
	1. MANUFACTURERS
		1. 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)](https://admin.arcat.com/users.pl?action=UserEmail&company=Wayne+Dalton&coid=36462&rep=&fax=&message=RE:%20Spec%20Question%20(08330way):%20%20&mf=); Web:<http://www.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.

* + 1. Substitutions: Not permitted.
		2. Requests for substitutions will be considered in accordance with provisions of Section 01 60 00 - Product Requirements.

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

* 1. ROLLING STEEL STORM SHELTER DOORS
		1. 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.
				1. 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.
				1. Slat Profiles/Material:

Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.

12-gauge G40 galvanized steel.

* + - 1. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
				1. Steel.
			2. Guides:
				1. Three structural angle guide assembly fabricated of:

Steel.

* + - * 1. Provide with integral windlock bars and removable bottom bar stops.
			1. 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.

* + - * 1. 3/16 inch minimum.
				2. 1/4 inch minimum.
			1. 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.
			2. 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:
				1. Minimum 24-gauge galvanized steel.
			3. Finish:

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

* + - * 1. Galvanized Steel: Powder Coat.

\*\* NOTE TO SPECIFIER \*\* PowderGuard Premium polyester powder coat available in 197 colors. See PowderGuard Finish brochure for color selection.

PowderGuard Premium powder coat, color as selected by the Architect.

* + - * 1. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
			1. 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.
				1. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
				2. Operator Controls:

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

Push-button operated control stations with open, close, and stop buttons.

Key operation with open, close, and stop controls.

Push-button and key operated control stations with open, close, and stop buttons.

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

Controls for interior location.

Controls for exterior location.

Controls for both interior and exterior location.

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

Controls surface mounted.

Controls flush mounted.

* + - * 1. Special Operation:

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

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Commercial light package.

Explosion and dust ignition proof control wiring.

Motor Voltage:

115/230 single phase, 60 Hz.

208/230 three phase,

460 three phase;

* + - 1. Locking:
				1. Chain keeper locks for chain hoist operation.
			2. Mounting: Face of Wall.
		1. 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
				1. 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.
				1. Slat Profiles/Material:

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

Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.

12-gauge G40 galvanized steel.

* + - 1. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
				1. Steel.
			2. Guides:
				1. Three structural angle guide assembly fabricated of:

Steel.

* + - * 1. Provide with integral windlock bars and removable bottom bar stops.
			1. 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.

* + - * 1. 3/16 inch minimum.
				2. 1/4 inch minimum.
			1. 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.
			2. 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:
				1. Minimum 24-gauge galvanized steel.
			3. Finish:

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

* + - * 1. Galvanized Steel: Powder Coat.

\*\* NOTE TO SPECIFIER \*\* PowderGuard Premium polyester powder coat available in 197 colors; custom color match options available. See PowderGuard Finish brochure for color selection.

PowderGuard Premium powder coat, color as selected by the Architect.

* + - * 1. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
			1. 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.
				1. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
				2. Operator Controls:

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

Push-button operated control stations with open, close, and stop buttons.

Key operation with open, close, and stop controls.

Push-button and key operated control stations with open, close, and stop buttons.

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

Controls for interior location.

Controls for exterior location.

Controls for both interior and exterior location.

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

Controls surface mounted.

Controls flush mounted.

* + - * 1. Special Operation:

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

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Commercial light package.

Explosion and dust ignition proof control wiring.

Motor Voltage:

115/230 single phase, 60 Hz.

208/230 three phase,

460 three phase;

* + - 1. Locking:
				1. Chain keeper locks for chain hoist operation.
			2. Mounting: Face of Wall.
		1. 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.
				1. 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.
				1. Slat Profiles/Material:

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

Curved profile type C-600 for doors up to 12 feet (3.66 m) wide.

12-gauge G40 galvanized steel.

* + - 1. Bottom Bar: Consists of two equal angles, 0.12 inch minimum thickness, to stiffen curtain. Angle shall be:
				1. Steel.
			2. Guides:
				1. Three structural angle guide assembly fabricated of:

Steel.

* + - * 1. Provide with integral windlock bars and removable bottom bar stops.
			1. 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.

* + - * 1. 3/16 inch minimum.
				2. 1/4 inch minimum.
			1. 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.
			2. 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:
				1. Minimum 24-gauge galvanized steel.
			3. Finish:

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

* + - * 1. Galvanized Steel: Powder Coat.

\*\* NOTE TO SPECIFIER \*\* PowderGuard Premium polyester powder coat available in 197 colors; custom color match options available. See PowderGuard Finish brochure for color selection.

PowderGuard Premium powder coat, color as selected by the Architect.

* + - * 1. Non-Galvanized Surfaces: Shop coat of rust inhibitive primer on non-galvanized surfaces and operating mechanisms.
			1. 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.
				1. Operation: Design door assembly, including operator, to operate for not less than 10,000 cycles.
				2. Operator Controls:

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

Push-button operated control stations with open, close, and stop buttons.

Key operation with open, close, and stop controls.

Push-button and key operated control stations with open, close, and stop buttons.

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

Controls for interior location.

Controls for exterior location.

Controls for both interior and exterior location.

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

Controls surface mounted.

Controls flush mounted.

* + - * 1. Special Operation:

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

Vehicle detector operation.

Radio control operation.

Card reader control.

Photocell operation.

Door timer operation.

Commercial light package.

Explosion and dust ignition proof control wiring.

Motor Voltage:

115/230 single phase, 60 Hz.

208/230 three phase,

460 three phase;

* + - 1. Locking:
				1. Chain keeper locks for chain hoist operation.
			2. Mounting: Face of Wall.
1. EXECUTION
	1. EXAMINATION
		1. Do not begin installation until substrates have been properly prepared.
		2. Examine conditions of substrates, supports, and other conditions under which this work is to be performed.
		3. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.
	2. PREPARATION
		1. Clean surfaces thoroughly prior to installation.
		2. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.
	3. INSTALLATION
		1. Install in accordance with manufacturer's instructions.
	4. ADJUSTING
		1. Test for proper operation and adjust as necessary to provide proper operation without binding or distortion.
		2. Adjust hardware and operating assemblies for smooth and noiseless operation.
	5. CLEANING
		1. Clean curtain and components using non-abrasive materials and methods recommended by manufacturer.
		2. Remove labels and visible markings.
		3. Touch-up, repair or replace damaged products before Substantial Completion.
	6. PROTECTION
		1. Protect installed products until completion of project.
		2. Touch-up, repair or replace damaged products before Substantial Completion.
	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.

* + 1. :
		2. :

END OF SECTION