

Product Evaluation

GDR34 | 0422

Engineering Services Program

The following product has been evaluated for compliance with the wind loads specified in the International Residential Code (IRC) and the International Building Code (IBC).

This product evaluation is not an endorsement of this product or a recommendation that this product be used. The Texas Department of Insurance has not authorized the use of any information contained in the product evaluation for advertising, or other commercial or promotional purpose.

This product evaluation is intended for use by those individuals who are following the design wind load criteria in Chapter 3 of the IRC and Section 1609 of the IBC. The design loads determined for the building or structure shall not exceed the design load rating specified for the products shown in the limitations section of this product evaluation. This product evaluation does not relieve a Texas licensed engineer of his responsibilities as outlined in the Texas Insurance Code, the Texas Administrative Code, and the Texas Engineering Practice Act.

For more information, contact TDI Engineering Services Program at (800) 248-6032.

Evaluation ID: GDR-34

Effective Date: April 1, 2022

Re-evaluation Date: August 2025

Product Name: Model 5120/9100, 5140/9400, 6100, and 9600 Steel Sectional Garage Doors, Non-Impact and Impact Resistant

Manufacturer: Wayne-Dalton, a division of Overhead Door Corp
2501 S State Hwy 121 Busn, Suite 200
Lewisville, TX 75067
(800) 929-3667

General Description:

Models 5120/9100, 5140/9400, 6100, and 9600 doors are sectional steel garage doors constructed with insulated foamed in place polyurethane foam. The foam is chemically bonded to an exterior steel skin and an interior polylaminate skin to provide a composite section for added strength of the door.

The Model 9600 garage door has an interior galvanized and painted 32-gauge steel skin with an embossed wood grain texture finish. The exterior skin of the garage doors is galvanized and is painted 30-gauge steel.

The Models 5120/9100 and 9600 have an exterior steel skin that is embossed with a contemporary wood grain texture finish or a colonial, ranch, or vertical raised panel wood grain texture finish.

The exterior skin for the Model 5140/9400 doors is embossed with a 1/4" deep recessed panel wood grain texture finish and may be overlaid with decorative trim pieces.

The exterior skin for the Model 6100 door is embossed with a contemporary wood grain texture finish and has a 1/2" non-structural overlay.

Product Identification: The door has a wind load label, applied by the installer, that includes the manufacturer's name (Wayne Dalton); the model numbers (5120/514x/9100/940x/9600); the windload specification option code; the design pressure rating; the test standards (ANSI/DASMA 108 and ANSI/DASMA 115); and the TDI product evaluation number (GDR-34).

Limitations:

This evaluation report includes both non-impact resistant and impact resistant doors.

The maximum height of each door section must not exceed 24 inches.

The doors have a maximum width of 18 feet. Refer to Table 1 and Table 2 in this evaluation report for allowable door widths for specific doors.

The doors have a maximum height of 12 feet. Refer to Table 1 and Table 2 in this evaluation report for allowable door heights for specific doors.

On some doors, a vertical wind load post is required to obtain the design pressure rating. The placement and installation of the wind load post is shown on the design drawings.

Glazing: Impact and non-impact resistant glazing is available on some doors if specified in the drawing notes. Glass construction, clear opening size, and attachment of the glass to the door panel is specified on the drawings.

Louvers: Louvers are available on some doors. Impact resistant doors do not include louvers. The dimensions of the louvers and the attachment of the louvers to the door panels is specified on the drawings.

Impact Protection:

Doors with impact resistant glazing satisfy the Texas Department of Insurance's criteria for protection from windborne debris. The doors passed the equivalent of missile level D specified in ASTM E 1996-14a. These door assemblies will not require protection with an impact protective system.

Doors with non-impact resistant glazing do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These door assemblies will require protection with an impact protective system when installed in areas where windborne debris protection is required.

Doors without glazing may be installed without protection with an impact protective system.

Installation:

General: The door must be installed in accordance with the manufacturer's published installation instructions, engineering drawings and this product evaluation report. A copy of the drawings must be available at all times at the job site during installation. The information within this evaluation report governs if there are any conflicts between the manufacturer's instructions and this report. Interior reinforcement hardware configurations will vary based on the garage door dimensions and wind pressure requirements. Refer to Table 1 and Table 2 for maximum allowable door dimensions, allowable design pressures, and applicable drawings. Required reinforcement configurations are shown on the drawings.

The rated pressures may not be achieved unless the door is held closed during the wind event. The door must be locked closed prior to the wind event.

Design Drawings:

The drawings in Table 1 are signed, sealed, and dated by Junfeng Qian, P.E. Table 1 indicates the drawing revision, drawing revision date, and the seal date of the engineer.

The drawings in Table 2 are signed, sealed, and dated by John E. Scates, P.E. Table 2 indicates the drawing revision, drawing revision date, and the seal date of the engineer.

Installation:

Design Drawings: The doors must be installed as specified on the design drawings.

Windload Post Installation Instructions: Some doors require the installation of a windload post. For those doors that require the installation of windload posts, the design drawings will specify the location of the posts and specific installation instructions. It is required that the document "WindLoad Post Models 5120/5140/6100/9100/9400/9600 Installation Instructions," part No. 319040 P1, copyright 2006, published by Wayne-Dalton Corp., be provided with the door to provide complete installation instructions.

Attachment of Doors to Walls: Unless otherwise specified on the design drawings, the doors must be installed using one of the following methods:

Attachment of Door Components to Wood-Framed Walls Using a Wood Jamb: Brackets for the vertical tracks and for the flag angles of the door must be attached directly to wood jambs with the fasteners specified on the design drawings. The wood jambs and the attachment of the wood jambs to the wood framed walls must be as specified in the Jamb Connection Supplement, Drawing Number 363342, Rev. P01, signed and sealed on April 26, 2021, by John Scates, P.E.

Attachment of Door Components to Concrete/Masonry Block Walls Using a Wood Jamb: Brackets for the vertical tracks and for the flag angles of the door shall be attached directly to wood jambs with the fasteners specified on the design drawings. The wood jambs and the

attachment of the wood jambs to the concrete/masonry block walls must be as specified in the Jamb Connection Supplement, Drawing Number 363342, Rev. P01, signed and sealed on April 26, 2021, by John Scates, P.E.

Attachment of Door Components to Using Direct Mount Method: Brackets for the vertical tracks and for the flag angles of the door must be attached directly to the wall framing in accordance with the Jamb Connection Supplement, Drawing Number 363342, Rev. P01, signed and sealed on April 26, 2021, by John Scates, P.E.

Commercial Track Supplement (Available for all Doors): Doors may be secured to the wall framing of the structure in accordance with the Track Supplement Chart, Drawing No. 307494, Rev. P12, signed and sealed on December 11, 2020, by Dwayne J. Kornish, P.E. Design pressure rating and maximum door width may be limited by this supplement.

Table 1
Windload Specification Option Code, Allowable Door Dimensions,
Glazing Options and Design Pressure Rating

Drawing; Windload Specification Option Code	Maximum Width	Maximum Height	Vertical Windload Post	Glass Option	Impact Resistant	Design Pressure (psf)
318958; 0228 Rev K; 4-20-21 Sealed 4-30-21	9'-0"	8'-9"	No	Yes	Yes	+26.9, -30.8
319022; 0234 Rev H; 4-20-21 Sealed 4-30-21	9'-0"	8'-9"	No	Yes	Yes	+43.2, -49.6
318960; 0230 Rev M; 4-20-21 Sealed 4-30-21	16'-0"	8'-9"	No	Yes	Yes	+25.9, -28.8
318996; 0231 Rev H; 4-20-21 Sealed 4-30-21	16'-0"	8'-9"	No	No	Yes	+30.0, -33.50
319023; 0235 Rev H; 4-20-21 Sealed 4-30-21	16'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
319000; 0233 Rev H; 4-20-21 Sealed 4-30-21	18'-0"	8'-9"	No	Yes	No	+18.5, -20.7
319024; 0236 Rev H; 4-20-21 Sealed 4-30-21	18'-0"	8'-0"	Yes	Yes	Yes	+30.0, -33.5
319025; 0237 Rev J; 4-20-21 Sealed 4-30-21	18'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
319026; 0600 Rev G; 4-20-21 Sealed 4-30-21	9'-0"	10'-0"	No	Yes	No	+26.9, -30.8
319027; 0601 Rev G; 4-20-21 Sealed 4-30-21	9'-0"	10'-0"	No	Yes	Yes	+41.0, -46.3
319029; 0603 Rev H; 4-20-21 Sealed 4-30-21	16'-0"	10'-0"	No	Yes	No	+23.0, -25.0
319030; 0604 Rev G; 4-20-21 Sealed 4-30-21	16'-0"	8'-0"	Yes	Yes	Yes	+39.2, -43.7
319032; 0606 Rev J; 4-20-21 Sealed 4-30-21	18'-0"	8'-0"	Yes	Yes	No	+30.0, -33.5
319035; 0609 Rev H; 4-20-21 Sealed 4-30-21	18'-0"	8'-0"	Yes	No	Yes	+39.2, -43.7
319033; 0607 Rev H; 4-20-21 Sealed 4-30-21	16'-0"	8'-0"	No	Yes	No	+25.9, -28.8
319034; 0608 Rev G; 4-20-21 Sealed 4-30-21	18'-0"	8'-0"	No	Yes	No	+18.5, -20.7

Table 2
Windload Specification Option Code, Allowable Door Dimensions,
Glazing Options and Design Pressure Rating

Drawing; Windload Specification Option Code	Maximum Width	Maximum Height	Vertical Windload Post	Glass Option	Impact Resistant	Design Pressure (psf)
411626; 0641 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	No	+15.4, -17.4
411627; 0642 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	No	+18.4, -20.8
411628; 0643 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	Yes	+25.0, -28.2
411629; 0644 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	Yes	+32.8, -38.9
411630; 0645 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	Yes	+41.3, -46.7
411632; 0646 Rev C; 5-20-21 Sealed 6-03-21	9'-0"	12'-0"	No	Yes	Yes	+46.0, -52.0
411634; 0648 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	No	+15.4, -17.4
411635; 0649 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	No	+18.4, -20.8
411636; 0650 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	No	+23.0, -25.0
411637; 0651 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	Yes	+25.0, -28.2
411638; 0651 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	Yes	+28.7, -32.4
411639; 0651 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	Yes	+32.6, -36.9
411640; 0654 Rev C; 5-20-21 Sealed 6-03-21	16'-0"	12'-0"	No	Yes	Yes	+41.3, -46.7
411642; 0656 Rev C; 5-20-21 Sealed 6-03-21	18'-0"	12'-0"	No	Yes	No	+18.4, -20.8

Table 2
Windload Specification Option Code, Allowable Door Dimensions,
Glazing Options and Design Pressure Rating

Drawing; Windload Specification Option Code	Maximum Width	Maximum Height	Vertical Windload Post	Glass Option	Impact Resistant	Design Pressure (psf)
411643; 0657 Rev C; 5-20-21 Sealed 6-03-21	18'-0"	12'-0"	No	Yes	Yes	+25.0, -28.2
411644; 0658 Rev C; 5-20-21 Sealed 6-03-21	18'-0"	12'-0"	No	Yes	Yes	+32.8, -36.9
411645; 0659 Rev C; 5-20-21 Sealed 6-03-21	18'-0"	12'-0"	No	Yes	Yes	+41.3, -46.7

Note: Keep the manufacturer's installation instructions, the design drawings, the Jamb Connection Supplement, the Track Supplement, and the Windload Post Instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.