

Product Evaluation

GDR81 | 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-81

Effective Date: April 1, 2022

Re-evaluation Date: April 2026

Product Name: Models 2216, 2283, 2516, 2583, 4216, 4283, 5216, 5283, 5916, and 5983
Residential Sectional Steel Garage Doors, Impact Resistant

Manufacturer: C.H.I. Overhead Doors
P. O. Box 260
Arthur, IL 61911
(800) 677-2650

General Description:

All doors are residential sectional garage doors constructed from galvanized steel with a baked-on polyester finish.

The 2283, 2583, 4283, 5283, and 5983 model doors are constructed from 27-gauge steel exterior with 27-gauge steel back panels, insulated with expanded polystyrene insulation.

The 2216, 2516, 4216, 5216, and 5916 model doors are constructed from 27-gauge steel exterior with 27-gauge steel back panels, insulated with poured-in urethane insulation.

The doors use a combination of 3" U-bars for horizontal reinforcement.

Drawing number, design pressures, dimensions, and glazing dimensions are shown in Table 1.

Product Identification: A label will be affixed to the steel sectional overhead door. The label must include the manufacturer's name, series number of door, the allowable design pressure rating, and the design drawing number. The installer will verify that the label is clearly marked indicating which door assembly is being installed, in addition to verifying that the design pressure rating is clearly marked.

Limitations

Maximum Section Height: The maximum height of each door section must not exceed 21".

Maximum Width: The doors have a maximum width of 20'. Refer to Table 1 and the design drawings for the allowable door width dimensions.

Maximum Height: The doors have a maximum height of 20'. Refer to the design drawings for allowable door heights for specific doors.

Horizontal Reinforcement: The doors are reinforced with 17-gauge or 19-gauge, 3" steel U-bars. The quantity, placement, and installation of the U-bars are shown on the design drawings.

Design Drawings: Specified in Table 1.

Design Pressures: Specified in Table 1.

Glazing (Optional): Glass options are specified on the design drawings.

Impact Protection: These garage door assemblies have been tested for windborne debris resistance. These garage door assemblies will not need to be protected with an impact protective system when installed in areas where windborne debris protection is required.

Installation:

Design Drawings: The doors are to be installed as specified on the design drawings and other accompanying installation instructions. The design drawings must be provided with the door. The drawing numbers are specified in Table 1. The design drawings (with Supplemental Instructions) are signed, sealed, and dated March 4, 2022, by John E. Scates.

Attachment of Doors to the Building: Doors are secured to the structure as detailed in the Jamb Attachment drawings BJA-101, through BJA-106. Options include attaching directly to the building wall structure, or to a 2x6 wood jamb secured to the building using the methods and limitations contained in the Jamb Attachment drawings. The door drawings include the details for securing the door track brackets directly to a flat 2x6 when that 2x6 is Southern Pine. If softer wood is used for the 2x6, refer to drawing BJA-106. Additional methods for securing the door track directly to the building structure are available and detailed in these Jamb Attachment drawings. All Jamb Attachment drawings, BJA-101 through BJA-106, were signed, sealed, and dated on January 7, 2021, by John E. Scates, P.E.

Note: Keep the manufacturer's installation instructions, the appropriate design drawings, the Supplemental Instructions, and the appropriate jamb attachment drawing available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC and the IBC.

Table 1
All Door Models

Door Width	Horizontal Reinforcement	Design Pressures (psf)	Drawing Number
up to 9'-00"	19 gauge, 3" U-bars	+23.2 / -26.2	Z4i-09-02503
10'-00"	17 gauge, 3" U-bars	+22.2 / -24.7	Z4i-16-02503
13'-06"		+22.2 / -24.7	
16'-00"		+22.2 / -24.7	
16'-01"	17 gauge, 3" U-bars	+22.2 / -24.7	Z4i-18-02503
18'-00"		+22.2 / -24.7	
10'-00"	17 gauge, 3" U-bars	+30.6 / -34.1	Z6i-16-02503
13'-06"		+30.6 / -34.1	
16'-00"		+30.6 / -34.1	
16'-01"	17 gauge, 3" U-bars	+30.3 / -33.7	Z6i-18-02503
17'-10"		+30.3 / -33.7	
18'-00"		+30.1 / -33.5	
up to 9'-00"	19 gauge, 3" U-bars	+38.3 / -43.5	Z8i-09-02503
<= 9'-00"	17 gauge, 3" U-bars	+49.9 / -56.7	Z9i-10-02503
9'-06"		+47.1 / -54.2	
10'-00"		+44.7 / -51.5	
10'-01"	17 gauge, 3" U-bars	+43.0 / -48.3	Z6i-20-02503
11'-11"		+43.0 / -48.3	
13'-11"		+43.0 / -48.3	
15'-11"		+43.0 / -48.3	
16'-00"		+43.0 / -48.3	
16'-06"		+43.0 / -48.3	
18'-00"		+39.5 / -44.4	
18'-02"		+38.8 / -43.6	
19'-11"		+32.3 / -36.3	
20'-00"		+32.0 / -36.0	
9'-01"	17 gauge, 3" U-bars	+49.9 / -56.7	Z11i-10-02503
9'-06"		+49.9 / -56.7	
10'-00"		+49.9 / -56.7	
16'-07"	17 gauge, 3" U-bars	+43.0 / -48.3	Z7i-20-02503
17'-05"		+43.0 / -48.3	
18'-00"		+42.1 / -46.9	
19'-00"		+37.8 / -42.1	
20'-00"		+34.1 / -38.0	