

## Product Evaluation

GDR89 | 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-89

**Effective Date:** April 1, 2022

**Re-evaluation Date:** April 2026

**Product Name:** Models 3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, and 3252 Commercial Sectional Steel Garage Doors, Non-Impact Resistant

**Manufacturer:** C.H.I. Overhead Doors  
1485 Sunrise Drive  
Arthur, IL 61911  
(800) 677-2650

### General Description:

Model 3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, and 3252 doors are commercial sectional garage doors constructed from galvanized steel with a baked on polyester finish. The 3220, 3221, and 3222 model doors are constructed from 20-gauge steel panels with optional vinyl or steel backed drop in expanded polystyrene insulation. The 3240, 3241, and 3242 model doors are constructed from 24-gauge steel panels with optional vinyl or steel backed drop in expanded polystyrene insulation. The 3250, 3251, and 3252 model doors are constructed from 25-gauge steel panels with optional vinyl or steel backed drop in expanded polystyrene insulation. The doors use either 3" U-bars or 6" C-channels for horizontal reinforcement. Drawing number, design pressures, door width, horizontal reinforcement, and glazing options 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 (CHI Overhead Doors); series/model number of door; the

allowable design pressure rating; the design drawing number; and the test standards (ANSI/DASMA 108). 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 24".

**Maximum Width:** The doors have a maximum width of 28'-02". Refer to Table 1 and the design drawings for the allowable door width dimensions.

**Maximum Height:** The doors have a maximum height of 24'. Refer to the design drawings for allowable door heights for specific doors.

**Horizontal Reinforcement:** The doors are reinforced with 17-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. The glazing is secured to the door panels in the following manner:

Glass Daylight Opening Size	Fasteners
21-1/2" x 3-5/16"	No. 8 screws. Ten (10). 2 along each vertical side. 3 along each horizontal side
21-5/8" x 9-5/8"	No. 8 screws. Sixteen (16). 3 along each vertical side. 5 along each horizontal side
31-3/8" x 13-1/2"	No. 8 screws. Fourteen (14). 1 at each corner. 1 along each vertical side. 4 along each horizontal side
49-1/8" x 19"	Windows for aluminum section. Fasteners are not required.

**Impact protection:** These doors have not been tested for windborne debris resistance. Doors that contain glazing will need windborne debris protection if installed in areas where windborne debris protection is required.

### Installation Instructions:

**Design Drawings:** The doors are to be installed as specified on the design drawings. The manufacturer will provide the design drawings with the door. The drawing numbers are specified in Table 1. Each page of the design drawing is dated March 10, 2022. Each page of the drawing

is sealed by John E. Scates, P.E. and the first page is digitally signed and dated March 16, 2022, by John E. Scates, P.E.

**Attachment of Doors to the Building:** Doors are secured to the wall structure as specified in the Jamb Attachment details. The Jamb Attachment details include the following drawings:

BJA-101R8  
BJA-102R7  
BJA-103R8  
BJA-104R8  
BJA-105R7  
BJA-105R5  
BJA-106R5

Each drawing is dated March 26, 2020 and sealed by John E. Scates. Drawing BJA-101R8 is digitally signed and dated January 7, 2021.

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

**Table 1**  
**Models 3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, 3252**

Door Width	Horizontal Reinforcement	Design Pressure (psf)	Drawing Number
14'-02"	17 gauge, 3" U-bars	+27.6 / -36.0	Z3-20-61317
16'-02"		+24.2 / -31.6	
16'-05"		+23.8 / -33.1	
18'-02"		+21.5 / -28.1	
20'-02"		+17.4 / -22.8	
22'-02"		+14.4 / -18.9	
10'-06"	17 gauge, 3" U-bars	+32.6 / -39.4	Z4-14-61317
12'-02"		+28.1 / -34.0	
12'-11"		+24.9 / -30.2	
14'-02"		+20.7 / -25.1	
16'-02"		+15.9 / -19.3	
16'-05"		+15.4 / -18.7	
8'-02"	17 gauge, 3" U-bars	+64.9 / -73.2	Z4-16-61317
9'-02"		+57.5 / -68.9	
9'-05"		+54.5 / -65.3	
10'-02"		+46.7 / -56.0	
12'-02"		+36.7 / -45.1	
12'-11"		+32.6 / -40.0	
14'-02"		+28.8 / -35.4	
16'-02"		+22.1 / -27.2	
16'-05"		+21.4 / -26.4	
18'-02"		+17.5 / -21.5	
20'-02"		+14.2 / -17.5	
6'-00"		17 gauge, 3" U-bars	
8'-02"	+30.0 / -45.7		
9'-02"	+26.7 / -40.7		
9'-05"	+26.0 / -39.6		
10'-02"	+24.1 / -36.7		
11'-02"	+20.0 / -30.4		
12'-02"	+17.3 / -22.9		
12'-11"	+15.3 / -20.3		

**Table 1**  
**Models 3220, 3221, 3222, 3240, 3241, 3242, 3250, 3251, 3252**

Door Width	Horizontal Reinforcement	Design Pressure (psf)	Drawing Number
12'-02"	17 gauge, 3" U-bars	+44.2 / -55.3	Z5-18-61317
14'-02"		+38.0 / -47.5	
16'-02"		+33.3 / -41.6	
16'-05"		+32.3 / -40.3	
18'-02"		+26.4 / -32.9	
20'-02"		+21.4 / -26.7	
22'-02"		+17.7 / -22.1	
24'-02"		+14.9 / -18.6	
16'-08"	17 gauge, 3" U-bars	+41.2 / -41.2	Z8-18-61317
18'-02"		+37.8 / -37.8	
20'-02"		+30.7 / -30.7	
22'-02"		+25.4 / -25.4	
24'-02"		+21.4 / -21.4	
26'-02"		+18.2 / -18.2	
28'-02"		+15.7 / -15.7	
6'-00"	17 gauge, 3" U-bars	+64.2 / -72.3	Z9-09-61317
8'-02"		+47.2 / -53.1	
9'-02"		+37.6 / -46.5	
9'-05"		+36.6 / -45.2	
9'-06"		+36.3 / -44.8	
10'-02"		+33.9 / -41.9	
10'-06"		+31.8 / -39.3	
12'-02"	17 gauge, 3" U-bars	+59.9 / -61.8	Z9-16-61317
14'-02"		+51.5 / -53.1	
15'-02"		+48.1 / -49.6	
16'-02"		+45.1 / -46.5	
16'-06"		+43.3 / -44.6	