

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
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PRODUCT EVALUATION

GDR-96

Effective May 1, 2014

*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 shall be subject to reevaluation **February 2018**.*

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.

Models 418FM, 420FM, and 422FM Commercial Steel Rolling Doors, Non-Impact Resistant, as manufactured by:

ASTA Door Corporation
4255 McEver Industrial Drive
Acworth, Georgia 30101
(770) 974-2600
www.astadoor.com

will be accepted for use in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with this product evaluation and the approved drawings that are referenced in this evaluation report.

PRODUCT DESCRIPTION

General: The Model 418FM, 420FM, and 422FM doors are commercial steel rolling doors that consist of the following components:

- **Slats:** 20, 22, or 18 gauge galvanized cold roll steel formed in continuous lengths. The slats span between the guides located on each side of the opening. The slats are manufactured from ASTM A653 grade 90 zinc coated steel and are finished with a baked epoxy primer and/or baked polyester top coat.
- **Guides:** The guides are structural steel. The guide assembly consists of three steel angles: A wall angle (3.00" x 3.00" x 0.25"); an inner angle (3.00" x 3.50" x 0.25"); and an outer angle (2.00" x 3.00" x 0.1875"). A guide assembly is required on each side of the door. The guide assembly is continuous from the bottom to the top of the door.
- **Windlocks:** Minimum 0.25" thick cast iron. The windlock clips are secured to every other slat beginning at the bottom slat. The windlock clips are secured to the slats with steel zinc plated rivets.
- **Bottom Bar:** Consists of two steel angles (each 2.00" x 2.00" x 0.125") with a continuous vinyl bulb astragal. The bottom bar assembly extends the full width of the opening.

LIMITATIONS

Design Drawings: The doors shall be installed in accordance with the following drawing: "400 Series Flat Slat Certified Windload Rated Rolling Steel Service Door," drawing #607-6-400FM-2, sheets 1 through 3 of 3, dated February 11, 2014, signed and sealed by Joseph H. Dixon, P.E. on March 29, 2014. The stated drawings will be referred to as approved drawings in this report. A copy of the approved drawings shall be available at the job site.

Wall Construction: The doors shall be mounted to the following types of wall construction:

- Cast-in-place concrete (minimum 3,000 psi)
- Steel, minimum $\frac{3}{16}$ " thick, A36

Maximum Door Width: 20'-6"

Maximum Door Height: 30'-0"

Glazing: Not permitted.

Allowable Design Pressure Rating: The allowable design pressure varies as a function of door width. The allowable design pressures range from ± 37.7 psf for 20.5 ft wide doors to ± 92.4 psf for 8 ft wide doors. Refer to the approved drawings for the appropriate allowable design pressure.

Product Identification: A label will be affixed to the door. The label shall include the manufacturer name; the model number of the door; the design pressure rating for the door; and compliance with either ASTM E 330-02 or ANSI/DASMA 108-05.

Impact Resistance: The doors listed in this report do not satisfy the Texas Department of Insurance's criteria for protection from windborne. An impact protective system is required when the product is installed in areas where windborne debris protection is required.

Acceptance of Smaller Assemblies: Door assemblies with dimensions equal to or smaller than those specified above are acceptable within the limitations specified in this report.

INSTALLATION INSTRUCTIONS

General Installation Requirements: The doors shall be installed in accordance with the manufacturer's installation instructions, the approved drawings, and this product evaluation report.

Wall Construction: The doors shall be mounted to the following types of wall construction:

- Cast-in-place concrete (minimum 3,000 psi)
- Steel, minimum $\frac{3}{16}$ " thick, A36

Anchorage: The doors shall be anchored to the structure using the guide assembly in accordance with the approved drawings. Anchorage of the guide assembly to either concrete or steel substrates shall follow the mounting details on the approved drawings and the fasteners specified in the mounting details. The minimum embedment depths for all fasteners that penetrate into the concrete shall be as specified on the design drawings.

Note: The manufacturer's installation instructions and as build drawings shall be available on the job site during installation. All fasteners shall be corrosion resistant as specified in the International Residential Code (IRC), the International Building Code (IBC), and the Texas Revisions.