

TEXAS DEPARTMENT OF INSURANCE

Engineering Services Program / MC 103-3A 333 Guadalupe Street P.O. Box 149104 Austin, Texas 78714-9104
Phone No. (512) 322-2212 Fax No. (512) 463-6693

PRODUCT EVALUATION

DR-299

Effective Date: August 2012

Reevaluation Date: **July 2015**

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.

Model EX3 Outswing Single Hinged Steel Doors, Impact Resistant, manufactured by

Master Security Doors, Inc.
2179 N. Powerline Road
Suite 2
Pompano Beach, Florida 33069
Telephone: (954) 971-4747

General Description:

System	Description	Design Pressure Rating
1	Model EX3 Outswing Single Hinged Steel Door; (X)	+150/-200 psf

Component Dimensions:

System	Overall Size	Operable Panel Size	Panel Daylight Opening Size
1	40.312" x 96.750"	One: 37.500" x 95.250"	N/A

Hinges:

- 5" butt hinges; Three (3) required for each door; Secured to the door hinge jamb reinforcement with two (2) M8 x 20.30 mm flat Allen head screws and secured thru the hinge jamb to a steel flat bar with two (2) M8 x 1.375" socket head cap machine screws. The male and female sections are connected together using a pivot rod.

Hardware:

- Cisa cylinder lock (4-point lock); Located 34 1/2 inches from the bottom rail. The lock case is attached to the stile with two (2) 1/4"-28 x 1/2" flat Allen head screws. The cylinder lock has a tongue upper and lower attached to the cylinder lock with rivets. A metal link hollow rod is inserted into the tongue upper and the tongue lower to connect the cylinder lock to the top and bottom slide bolts. Two (2) angle shaped backing tobars are inserted into the bottom link hollow rod (top side) and into the top link hollow rod (bottom side).
- Lock strike plate; Secured to the lock jamb with two (2) 1/4"-28 x 1/2" flat Allen head screws.
- Lock handle; Located at 38 1/2 inches from the bottom rail.

Hardware - continued:

- Lock slide bolts; Located on the door lock stile; Located at 9 inches from the top rail and at $8\frac{3}{4}$ inches from the bottom rail. The slide bolts are mounted in a steel box that is welded to a steel bar at one end. The steel bar is welded to the door main casing.

Product Identification (Certification Agency Label on Door):

System		
1	Certification Agency	N/A
	Manufacturer's Name or Code Name	Master Security Doors, Inc.
	Product Name	Model EX3 Outswing Single Steel Door
	Test Standards	ASTM E330; ASTM E 1886-02; ASTM E 1996-02; Missile Level D

Impact Resistance:

Impact Resistant	Requirement
Yes	These products satisfy the Texas Department of Insurance's criteria for protection from windborne debris in the Inland I and Seaward zone . The assemblies may be installed at any height on the structure as long as the design pressure rating for the assemblies is not exceeded.

Installation: The wall framing shall be minimum Southern Yellow Pine dimension lumber. The door is secured to the wall framing members using the door sub-frame and the sill.

Side jambs: Along each side jamb, a minimum of six (6) $\frac{1}{4}$ " x $2\frac{3}{4}$ " hex head Tapcons with flat washers are required. Measured from the head, the fasteners are located at $2\frac{3}{4}$ inches, $17\frac{5}{8}$ inches, $35\frac{3}{8}$ inches, $53\frac{1}{8}$ inches, $70\frac{7}{8}$ inches, and $88\frac{5}{8}$ inches. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing.

Head: Along the head, a minimum of two (2) $\frac{1}{4}$ " x $2\frac{3}{4}$ " hex head Tapcons with flat washers are required. One fastener is located $7\frac{1}{2}$ inches from each jamb. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing.

Sill: Along the sill, a minimum of two (2) $\frac{1}{4}$ " x $2\frac{3}{4}$ " flat head screws are required. One fastener is located $7\frac{1}{2}$ inches from each jamb. The fasteners shall be long enough to penetrate a minimum of $1\frac{1}{2}$ inches into the wall framing.

Note: The manufacturer's installation instructions 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.