

# TEXAS DEPARTMENT OF INSURANCE

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

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## PRODUCT EVALUATION DR-334

Effective August 1, 2008

*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 **May 2011**.*

*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.*

**Buffalo Forge Steel Hinged Inswing Doors, Non-impact Resistant, manufactured by**

**Glass Craft Door Company  
2002 Brittmoore Rd.  
Houston, Texas 77043-2209  
(800) 766-2196**

will be acceptable in designated catastrophe areas along the Texas Gulf Coast when installed in accordance with the manufacturer's installation instructions and this product evaluation.

## PRODUCT DESCRIPTION

The steel hinged entry doors evaluated in this report are inswing, non-impact resistant hinged entry doors. This product evaluation report is for steel hinged inswing entry doors based on the following tested constructions:

### General Description:

System	Description	Label Rating
1	Buffalo Forge Steel Inswing Round Top Single Door; X	3'-3" x 8'-3" DP: +54.18, -58.94 psf
2	Buffalo Forge Steel Inswing Round Top Double Doors	6'-3" x 8'-3" DP: +50.68, -63.98 psf
3	Buffalo Forge Steel Inswing Arch Top Double Doors	6'-3" x 8'-3" DP: +50.68, -63.98 psf
4	Buffalo Forge Steel Inswing Double Doors with Half Round Transom	6'-2" x 11'-4" DP: +56.70, -64.68 psf

### Door Dimensions:

System	Overall Dimensions	Transom Size	Door Panel Dimensions	Panel Daylight Opening Size
1	38 <sup>7</sup> / <sub>8</sub> " x 98 <sup>3</sup> / <sub>4</sub> "	N/A	36" x 96"	22 <sup>1</sup> / <sub>2</sub> " x 86"
2	74 <sup>7</sup> / <sub>8</sub> " x 98 <sup>3</sup> / <sub>4</sub> "	N/A	Two (2): 36" x 96"	Two: 22 <sup>1</sup> / <sub>2</sub> " x 86"
3	74 <sup>7</sup> / <sub>8</sub> " x 98 <sup>3</sup> / <sub>4</sub> "	N/A	Two (2): 36" x 96"	Two: 22 <sup>1</sup> / <sub>2</sub> " x 86"
4	74 <sup>7</sup> / <sub>8</sub> " x 136"	74 <sup>7</sup> / <sub>8</sub> " x 37 <sup>3</sup> / <sub>4</sub> "	Two (2): 36" x 96"	Two: 22 <sup>1</sup> / <sub>2</sub> " x 86"

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**Glazing Description:**

System	Glass Construction <sup>1</sup>	Glazing Method <sup>2</sup>
1	IG-1	GM-1
2	IG-1	GM-1
3	IG-1	GM-1
4	IG-1	GM-1

Note: <sup>1</sup> See the "Glass Construction Key" for the glass construction.

<sup>2</sup> See the "Glazing Method Key" for the glazing method description.

**Glass Construction Key:**

IG-1: The door panels contain an insulating glass unit. The insulating glass units are comprised of two double strength ( $\frac{1}{8}$ " ) fully tempered glass lites with a desiccant-filled metal spacer system.

**Glazing Method Key:**

GM-1: The insulating glass units are exterior glazed with butyl taper at the exterior and the interior. The insulating glass unit is secured in place with a screw applied steel glazing bead at the interior. The screws are located 7 inches from each corner and 10 inches on center.

**Door Frame Construction (Systems 1 through 3):** The door frame is constructed of  $4\frac{5}{8}$ " thick steel jambs and includes an adjustable extruded aluminum threshold manufactured by Endura. The aluminum threshold is secured to the door jambs with three (3) screws at each end.

**Door Frame Construction (System 4):** The door frame is constructed of  $4\frac{5}{8}$ " thick steel head and side jambs and includes an adjustable extruded aluminum threshold manufactured by Endura. The aluminum threshold is secured to the door jambs with three (3) screws at each end. The transom frame is constructed of  $4\frac{5}{8}$ " thick steel head, sill, and side jambs.

**Door Panel Construction:** The door panels are constructed of 0.10" thick steel with a foam core. The glass frame is secured to the door panel with three barrel hinges and three sweep latches. Sweep latch keepers are welded to the door panel. A decorative iron grill is secured to the exterior side of the door panel.

**Mullion Construction (System 4):** The transom sill is secured to the door frame head with No. 14 x  $2\frac{3}{4}$ " screws located 14 inches from each end and 16 inches on center.

**Hardware:**

- Prodeco hinge (System 1); two (2) required; The hinges are welded to the door frame and to the door panel.
- Prodeco hinge (Systems 2, 3, and 4); Four (4) required (Two for each door); The hinges are welded to the door frame and to the door panel.
- Glass frame hinge (System 1); Three (3) required; Located 12 inches from each end and the midpoint of each glass frame.
- Glass frame hinge (Systems 2, 3, and 4); Six (6) required; Located 12 inches from each end and the midpoint of each glass frame.
- Lockset; One (1) required; Located 37 inches from the bottom of the lock stile. Attached to the door panel with two (2)  $1\frac{3}{4}$ " screws.

**Hardware (continued):**

- Lockset strike plate; One (1) required; Located on the door frame opposite the lockset. Attached to the door frame with two (2) M4 x  $\frac{3}{4}$ " screws.
- Deadbolt: One (1) required; Located 43 inches from the bottom of the lock stile. Attached to the door panel with two (2) 2" screws.
- Deadbolt strike plate; One (1) required; Located on the door frame opposite the deadbolt. Attached to the door frame with two (2) M4 x  $\frac{3}{4}$ " screws.
- Flushbolt (Systems 2, 3, and 4); Located at the top and bottom of the fixed panel.
- Flushbolt strike plates: Two (2) required; Located at the frame head and sill, opposite the flushbolts. Attached to the door frame with two (2) M4 x  $\frac{3}{4}$ " screws.
- Sweep latch (System 1); Three (3) required; Located 12 inches from each end and the midpoint of the glass frame.
- Sweep latch (Systems 2, 3, and 4); Six (6) required; Located 12 inches from each end and the midpoint of the glass frame.
- Sweep latch keeper (System 1); three (3) required; Located on the door leaf corresponding to each sweep latch.
- Sweep latch keeper (Systems 2, 3, and 4); Six (6) required; Located on the door leaf corresponding to each sweep latch.

**Product Identification:** A certification program label (NAMI) will be affixed to the door. The certification program label includes the manufacturer's name; product name; performance characteristics; and approved inspection agency to indicate compliance with the requirements of ASTM E 330-02.

**LIMITATIONS**

**Design pressures (DP):**

System	Maximum Width (in.)	Maximum Height (in.)	Design Pressure (psf)
1	38 $\frac{7}{8}$	98 $\frac{3}{4}$	+54.18, -58.94
2	74 $\frac{7}{8}$	98 $\frac{3}{4}$	+50.68, -63.98
3	74 $\frac{7}{8}$	98 $\frac{3}{4}$	+50.68, -63.98
4	74 $\frac{7}{8}$	136	+56.70, -64.68

**Impact Resistance:** These door assemblies do not satisfy the Texas Department of Insurance's criteria for protection from windborne debris. These door assemblies will need to be protected with an impact protective system when 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:** The door assembly shall be prepared and installed in accordance with the manufacturers recommended installation instructions. Detailed installation instructions and drawings are available from the manufacturer.

**Installation:**

**Systems 1 through 3:** The door assembly shall be fastened to minimum Southern Yellow Pine lumber wall framing using the door frame head and side jamb with minimum No. 14 x 3" screws. The fasteners shall be spaced approximately 9 inches from each corner and approximately 16 inches on center along the length of each side jamb. The sill shall be secured to the foundation with minimum No. 8 x 3" screws spaced 9 inches from each corner and approximately 16 inches on center. If the foundation is concrete, use minimum  $\frac{3}{16}$ " diameter concrete screws. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$ " into the wall framing members.

**System 4:** The door assembly shall be fastened to minimum Southern Yellow Pine lumber wall framing using the door frame and transom side jamb and the transom head with minimum No. 14 x 3" screws. The fasteners shall be spaced approximately 9 inches from each corner and approximately 16 inches on center along the length of each side jamb and the transom head. The sill shall be secured to the foundation with minimum No. 8 x 3" screws spaced 9 inches from each corner and approximately 16 inches on center. If the foundation is concrete, use minimum  $\frac{3}{16}$ " diameter concrete screws. The fasteners shall be long enough to penetrate a minimum of  $1\frac{1}{2}$ " into the wall framing members.

**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.