



Product Evaluation

DR465 | 0815

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: DR-465

Effective Date: August 1, 2015

Re-evaluation Date: August 2019

Product Name: Commercial Steel Flush and Glazed Outswing Hinged Doors, Non-impact

Manufacturer: Steelcraft Mfg. Co., Schlage Lock Company LLC
9017 Blue Ash Road
Cincinnati, OH 45242
(513) 745-6400

General Description:

System	Description	Design Pressure Rating
1	Commercial Steel Flush Outswing Hinged Single Doors; X	Refer to Hardware Section
2	Commercial Steel Flush Outswing Hinged Single (X) and Double (XX) Doors	Refer to Hardware Section
3	Commercial Steel Full Glazed Outswing Hinged Single Doors; X	Refer to Hardware Section
4	Commercial Steel Full Glazed Outswing Hinged Single (X) and Double (XX) Doors	Refer to Hardware Section

Component Dimensions:

System	Overall Size	Panel Size	Maximum Daylight Opening Size
1	52" x 98"	47-13/16" x 95-1/2"	N/A
2	100" x 98"	Active/Inactive: 47-13/16" x 95-1/2"	N/A
3	52" x 98"	47-13/16" x 83-1/2"	34-1/4" x 74-1/2"
4	100" x 98"	Active/Inactive: 47-13/16" x 95-1/2"	34-1/4" x 74-1/2"

Components and Hardware:

Thresholds:

- Pemko 2005, Zero 566, National Guard 950, or Durable HTL-205

Hinges: Hinges: 4-1/2" x 4-1/2" x 0.134 steel butt hinges (minimum hinge size) or continuous hinges.

Locking Hardware:

Locking Hardware Description

System 1

Commercial Steel Outswing Flush Single Doors

DP Rating (psf)	Model/Series	Description	Manufacturer	Series	Description	Manufacturer
+50/-45	AL, ND, A, S	Cylindrical Lock	Schlage	6200, 6210	Electric Strike	Von Duprin
	T, B, Z, X, S, H		Falcon			
	L9000, L9400	Mortise Lock	Schlage			
	M		Falcon			
CM5500	Locknetics					
+55/-40	2670 Guard-X	Exit Alarm Lock	Von Duprin	267	Strike	Von Duprin
+50/-50	18-M	Mortise Exit Device	Monarch	1279	Strike	Monarch
	17-M					
	XX-M					

Locking Hardware Description
System 2
Commercial Steel Outswing Flush Single and Double Doors

DP Rating (psf)	Model/Series	Description	Manufacturer	Series	Description	Manufacturer				
+50/-50	AL, ND, A, S	Cylindrical Lock	Schlage	FB51P	Flush Bolts	Ives				
	T, B, Z, X, S, H		Falcon	FB31P						
	L9000, L9400	Mortise Lock	Schlage	SB453	Surface Bolts					
	M		Falcon	SB360						
	CM5500		Locknetics	SB1630						
+50/-40	22-F	Rim Exit Device	Von Duprin	9954	Mullion	Von Duprin				
	98/99-F			9954						
+50/-50	88			9954						
	33A			4954						
	55			5754						
	19-R			Monarch			4023	Monarch		
+50/-40	33/3527A (F)			Surface Vertical Rod Exit Device			Von Duprin	299	Strike	Von Duprin
	2227 (F)									
	8827									
	98/9927 (F)									
	98/9957 (F)									
+50/-50	33/3547A (F)	Concealed Vertical Rod Exit Device	Von Duprin	338	Strike	Von Duprin				
	9447									
	94/9547 (F)									
	98/9947 (F)									
+50/-60	5547		Monarch	4023	Mullion	Monarch				
	(F) 17-C									
	(F) 18-C									
	(F) XX-C									

Locking Hardware Description
System 3
Commercial Steel Outswing Full Glazed Single Doors

DP Rating (psf)	Model/Series	Description	Manufacturer	Series	Description	Manufacturer
+50/-40	AL, ND, A, S	Cylindrical Lock	Schlage	6200, 6210	Electric Strike	Von Duprin
	T, B, Z, X, S, H		Falcon			
	L9000, L9400	Mortise Lock	Schlage			
	M		Falcon			
	CM5500		Locknetics			
	2670 Guard-X	Exit Alarm Lock	Von Duprin	267	Strike	Von Duprin
	18-M	Mortise Exit Device	Monarch	1279	Strike	Monarch
	17-M					
	XX-M					

Locking Hardware Description
 System 4
 Commercial Steel Outswing Full Glazed Single and Double Doors

DP Rating (psf)	Model/Series	Description	Manufacturer	Series	Description	Manufacturer
+50/-40	AL, ND, A, S	Cylindrical Lock	Schlage	FB51P	Flush Bolts	Ives
	T, B, Z, X, S, H		Falcon	FB31P		
	L9000, L9400	Mortise Lock	Schlage	SB453	Surface Bolts	
	M		Falcon	SB360		
	CM5500		Locknetics	SB1630		
	22-F	Rim Exit Device	Von Duprin	9954	Mullion	
	98/99-F			9954		
	88			9954		
	33A			4954		
	55		5754			
	19-R		Monarch	4023		Monarch
	33/3527A (F)	Surface Vertical Rod Exit Device	Von Duprin	299	Strike	Von Duprin
	2227 (F)					
	8827					
	98/9927 (F)					
	98/9957 (F)	Concealed Vertical Rod Exit Device	Von Duprin	338	Strike	Von Duprin
	33/3547A (F)					
	9447					
	94/9547 (F)					
	98/9947 (F)					
5547	Monarch		4023	Mullion	Monarch	
(F) 17-C						
(F) 18-C						
(F) XX-C						

Product Identification (Manufacturer Label on Door):

System		
1, 2	Manufacturer's Name	Steelcraft, Schlage Lock Company LLC
	Product Name	Commercial Steel Flush Door
	Test Standards	ASTM E 330-02
3, 4	Manufacturer's Name	Steelcraft, Schlage Lock Company LLC
	Product Name	Commercial Steel Glazed Door
	Test Standards	ASTM E 330-02

Impact Resistance:

System	Impact Resistant	Requirement
1, 2, 3, 4	No	Provide an impact protective system when installing the product in areas that require windborne debris.

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

Installation:

General: The door assemblies must be installed in accordance with the manufacturer's installation instructions and this product evaluation report. Detailed installation instructions are available from the manufacturer.

- New Concrete Masonry Units:** Concrete masonry units must be grout filled. Fasteners must be minimum 9-1/2" x 1-3/4" 18 gauge steel masonry T-anchors. The frame side jambs must be secured to the wall framing. The fasteners must be located a maximum of 28" up from the sill, a maximum of 18" down from the head, and a maximum of 30" on center. The sill must be anchored with minimum 1/4" x 1-3/4" Tapcons. The fasteners must be located approximately 4" from each end and a maximum of 11" on center for double doors and located approximately 6-1/2" from each end and a maximum of 11-3/4" on center for single doors.
- Existing Cast in Place Concrete or Concrete Masonry Units:** Concrete masonry units must be grout filled. Fasteners must be minimum 3/8" x 5" concrete anchors. The frame side jambs must be secured to the wall framing. The fasteners must be located a maximum of 6" up from the sill, a maximum of 6" down from the head, and a maximum of 25" on center. The fasteners must have a minimum embedment of 2" into the wall framing. The sill must be anchored with minimum 1/4" x 1-3/4" Tapcons. The fasteners must be located approximately 4" from each end and a maximum of 11" on center for double doors and located approximately 6-1/2" from each end and a maximum of 11-3/4" on center for single doors.
- Wood Wall Framing (option 1):** Wall framing must be minimum Southern Yellow Pine dimension lumber. The frame side jambs must be secured to the wall framing using minimum No. 8 x 1-3/4" screws. Four fasteners are required per anchor location. The anchors must be located a maximum of 24" up from the sill, a maximum of 4" down from the head, and a maximum of 30" on center. The fasteners must have a minimum embedment of 1-1/2" into the wall framing. The sill must be anchored with minimum 1/4" x 1-3/4" Tapcons. The fasteners must be located approximately 4" from each end and a maximum of 11" on center for double doors and located approximately 6-1/2" from each end and a maximum of 11-3/4" on center for single doors.
- Wood Wall Framing (option 2):** Wall framing must be minimum Southern Yellow Pine dimension lumber. The frame side jambs must be secured to the wall framing using minimum 3/8" x 5" lag screws. The fasteners must be located a maximum of 6" up from the sill, a maximum of 6" down from the head, and a maximum of 25" on center. The fasteners must have a minimum embedment of 3" into the wall framing. The sill must be anchored with minimum 1/4" x 1-3/4" Tapcons. The fasteners must be located approximately 4" from each end and a maximum of 11" on center for double doors and located approximately 6-1/2" from each end and a maximum of 11-3/4" on center for single doors.

- **Steel Wall Framing:** Wall framing must be minimum 16-gauge steel. Fasteners must be minimum No. 12 SMS. The frame side jambs must be secured to the wall framing. Two fasteners are required per anchor location. The anchors must be located a maximum of 24" up from the sill, a maximum of 4" down from the head, and a maximum of 30" on center. The fasteners must have a minimum embedment of 3 threads through the steel wall framing. The sill must be anchored with minimum 1/4" x 1-3/4" Tapcons. The fasteners must be located approximately 4" from each end and a maximum of 11" on center for double doors and located approximately 6-1/2" from each end and a maximum of 11-3/4" on center for single doors.

Note: Keep the manufacturer's installation instructions available on the job site during installation. Use corrosion resistant fasteners as specified in the IRC, the IBC, and the Texas Revisions.