TDI | Texas Department of Insurance

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Product Evaluation

DR934 | 1121 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-934

Effective Date: November 1, 2021
Re-evaluation Date: November 2025

Product Name: Series LS18 Flush Commercial Steel Outswing Side Hinged Door with Series AS Steel Frame, Impact Resistant

Manufacturer: Daybar Industries LTD
50 West Drive
Brampton, ON, Canada L6T 2J4
(905) 625-8000

General Description:
The Series LS18 Flush Commercial Steel Outswing Door with Series AS Steel Frame are steel frame non-glazed side hinged outswing doors used for commercial installations. This evaluation report includes the Single Door Assembly (X).

Product Identification: A Daybar label will be affixed to the door assembly. The label includes the manufacturer's name (Daybar Industries Limited); the product name (Series LS18 Flush Outswing Commercial Steel Door w/ Series AS Steel Frame); that the design pressure and dimensions are per drawing 21-128; and that the product complies with TAS-201, TAS-202, and TAS-203.

Compliance: The door assemblies passed test criteria equivalent to ASTM E 330-14, ASTM E 1886-13a, and ASTM E 1996-14a.

Limitations:

Design Drawings:

Door assemblies must comply and be installed in accordance with the following design drawing:

Drawing No. 21-128; "Series LS18 Flush Outswing Commercial Steel Door with Series AS Steel Frame;" Sheets 1 thru 14 of 14; dated September 30, 2021; revision 1 dated September 30, 2021; all signed and sealed by Walter A. Tillit, Jr, P.E on October 1, 2021. This evaluation report refers to the stated drawings as the approved drawings.

Fabrication and Assembly: The Series LS18 Flush Commercial Steel Outswing Door with Series AS Steel Frame are fabricated in the factory. The doors are assembled at the jobsite. The approved drawings referenced in this evaluation report indicate the options for the glazing construction.

Design Pressure (DP):

The door assemblies have a maximum design pressure rating of +90 psf / -90 psf.

Hardware: Hardware requirements are specified on the approved drawings.

Impact Resistance:

The doors satisfy TDI's criteria for protection from windborne debris. These assemblies passed the equivalent of Missile Level D specified in ASTM E 1996-14a. Install these assemblies at any height on the structure that does not exceed the assembly's design pressure rating. The assembly may not be installed below a height of 30 feet on essential facilities as defined in ASCE 7-16.

Installation Instructions:

General: Prepare and install the assembly in accordance with Daybar Industries LTD installation instructions and the approved drawings specified in this evaluation report. Detailed installation instructions are available from Daybar Industries LTD.

Installation:

Wall Framing Construction: The door assemblies may be mounted to several types of wall framing construction. The types of wall framing construction allowed include:

- Concrete (minimum compressive strength: 2,000 psi)
- Grout-filled concrete block (minimum compressive strength, grout: 1,500 psi)
- Steel ((minimum 16-gauge steel)
- Wood (southern yellow pine, minimum S.G. = 0.55)

Fastener Requirements:

- Refer to the approved drawings for the anchor layout and notes.
- Refer to the approved drawings for the minimum embedment depths for the fasteners and the minimum edge distances (minimum distance fastener must be from the edge of the substrate material) for the fasteners.

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