



Jax Apex Technology, Inc.

FBPE CA NO. 7547

9000 Regency Square Blvd, Ste. 100

Jacksonville, FL 32211

Evaluation reports are the opinion of the engineer who prepared the report, based on the findings, and in no way constitute or imply approval by a local building authority. The engineer, in review of the data submitted, finds that, in his opinion, the product, material, system, or method of construction specifically identified in this report conforms with or is a suitable alternate to that specified in the Florida Building Code, SUBJECT TO THE LIMITATIONS IN THIS REPORT

Jeffrey P. Arneson, an employee of Jax Apex Technology, Inc. (Apex Technology), is the authorized evaluating engineer of this report. Apex Technology is the prime professional, as defined in Florida Rule 61G-30.002, authorized to sell the engineering services performed by Jeffrey P. Arneson, and is in no way acting, nor attempting to act, as an approved evaluation entity. Neither Jeffrey P. Arneson, nor any other employee of Apex Technology, has performed calculations or testing for the products listed in this report. This evaluation is based solely upon the review, under the direct supervision of Jeffrey P. Arneson, of testing and/or calculations submitted by the manufacturer.

The capacities listed in this report are based on the limiting capacities as determined from the substantiating data. We reviewed the substantiating data to a degree that allowed us to determine whether or not the work performed is consistent with the intended use of the product, and that the methods used are in compliance with, or meet the intent of, the Florida Building Code. All test reports were prepared by an approved testing laboratory.

REPORT NO: WD04879

CATEGORY: Doors

SUBMITTED BY:

Wayne Dalton, A Division of Overhead Door (Wayne Dalton)
3395 Addison Drive
Pensacola, FL 32514

1. CERTIFICATION OF INDEPENDENCE

Jeffrey P. Arneson, the Florida engineer who prepared this report, and Apex Technology have no financial interest in the manufacturing, sales, or distribution of the products included in this report. Jeffrey P. Arneson and Apex Technology comply with all criteria as stated in Florida Rule 61G-20.

2. PRODUCT NAME

Model 8700 garage doors.

3. SCOPE OF EVALUATION

Structural Transverse Wind Loads

4. USES

Model 8700 garage doors are used for residential applications with specified allowable design pressures.

5. DESCRIPTION

General

Model 8700 garage doors listed in Table 1 of this report are sectional overhead doors and are constructed of minimum .052" vinyl facer and a minimum .032" vinyl backer. The doors have a polyurethane insulation sandwiched between the interior and exterior skins and 20 gage end caps. Each section shall have a 1-1/4" x 1-1/2" x 22 ga continuous internal rails at the top and bottom of each section. The ends of each rail in the top of each section shall be reinforced with a 15 gage reinforcing bracket. The sections shall have 20 gage backup plates at all intermediate hinge locations. The sections are 1-5/8" thick with tongue and groove joints and shall have a maximum section height of 21".

Door Tracks

All door assemblies listed in this report have both vertical and horizontal tracks ranging from a minimum 16 gage to minimum 15 gage, 33 ksi steel and finished with an ASTM A525 G-40 galvanized coating. The vertical tracks are attached to the supporting structure with jamb brackets as specified on the most recent manufacturer's installation instructions/drawings.

Glazed Sections

Unless noted otherwise, the option code assemblies listed in Table 1 of this report are available with a minimum of 0.125-inch thick standard SSB glass windows that are installed in frames and inserted in the top or intermediate section of the door. The glazing is not impact resistant and does not meet the requirements for wind-borne debris regions. Refer to the most recent manufacturer's installation instructions/drawings for glass size limitations.

Wind Load Bracing

All option code assemblies listed in Table 1 of this report are braced on the inside of the doors with three inch horizontal spanning U-bars. Each U-bar is made of either 18-gage or 20-gage ASTM A653 steel with a minimum yield strength of 80 ksi and are finished with an ASTM A525 minimum G-40 galvanized coating. The gage and quantity of U-bar braces varies depending on the amount of windload resistance required and the height of the door.

In addition to three-inch horizontal spanning U-bars, some of the option code assemblies listed in Table 1 of this report are braced with vertical aluminum posts made up of 0.125-inch thick 6063-T6 aluminum alloy. The post is a telescoping post assembly. The outer member outside diameter is 1.75" wide x 4.00" long. The inner member outside diameter is 1.47" wide x 3.72" long.

6. INSTALLATION

All option code assemblies listed in this report are to be installed in accordance with the most recent manufacturer's published installation instructions/drawings and this report.

The most recent manufacturer's installation instructions/drawings shall be strictly adhered to and a copy of these instructions/drawings shall be available at all times on the job site during installation.

7. ALLOWABLE TRANSVERSE WIND LOADS

Design wind load pressures for garage doors shall be determined in accordance with section 1609 of the 6th Edition Florida Building Code and shall not exceed the allowable transverse wind loads shown in the following tables:

Table 1: Model 8700 Garage Door Allowable Transverse Wind Loads

Windload Specification Option Code	Maximum Size		Positive Design PSF	Negative Design PSF	Reinforcement	Glazing Available (Yes/No)
	Width	Height				
1000	9'-0"	14'-0"	22.90	26.30	3", 20 gage U-bars	Yes
1001	9'-0"	14'-0"	31.20	35.80	3", 20 gage U-bars	Yes
1002	9'-0"	14'-0"	41.60	46.30	3", 20 gage U-bars	Yes
1020	16'-0"	14'-0"	23.00	25.00	3", 18 gage U-bars	Yes
1021	16'-0"	14'-0"	30.00	33.50	3", 18 gage U-bars	No
1022	16'-0"	8'-0"	43.40	48.40	3", 18 gage U-bars+ (2) Aluminum Posts	Yes
1040	18'-0"	12'-0"	18.50	20.70	3", 18 gage U-bars	Yes
1041	18'-0"	12'-0"	25.90	28.80	3", 18 gage U-bars	No
1042	18'-0"	8'-0"	39.20	43.70	3", 18 gage U-bars + (2) Aluminum Posts	Yes

8. SUBSTANTIATING DATA

For Premium garage doors, Test Report Number ETC-07-976-18894.0 in accordance with ANSI/DASMA 108-2002 for transverse wind load by ETC Laboratories, 297 Buell Road, Rochester, N.Y.

Installation drawings and installation instructions prepared by Wayne-Dalton Corporation for each option code assembly listed in Table 1 of this report.

9. CODE REFERENCES

7th Edition Florida Building Code

Section 1609	Wind Loads
Section 1709.5.2	ANSI/DASMA 108

10. REPORT SUMMARY

Upon review of the data submitted by Wayne-Dalton, it is my opinion that the models as described in this report conform with or are a suitable alternative to the code standards and sections in the 6th Edition Florida Building Code listed in section 9 of this report.

11. LIMITATIONS

Any reference in this report to the manufacturer's "most recent" information is a direct reference to the most recent information submitted by Wayne-Dalton to the Florida Building Commission as part of their Florida Product Approval application for the option code assemblies listed in Table 1 of this report.

This evaluation report and the most recent installation instructions, when required by the building official, shall be submitted at the time of permit application.

The design of the supporting structural elements shall be the responsibility of the design professional for the building structure and in accordance with current building codes for the loads listed in Table 1 of this report.

The doors shall not be located in areas where the transverse wind loads exceed the allowable loads shown in Table 1 of this report.

The option code assemblies with glazed panel inserts do not meet the impact requirements for the wind-borne debris regions.

The garage door assemblies listed in Table 1 of this report are not approved for use in the "High Velocity Hurricane Zone" as defined in the Florida Building Code.

12. IDENTIFICATION

Each Model series covered by this report shall be labeled with the manufacturer's name and/or trademark for field identification.

