

ENGINEERING EXPRESS® (EX) PRODUCT EVALUATION REPORT

June 24, 2024

Application Number: FL 41849.1
EX Project Number: 23-68364

Product Manufacturer: Discovery Energy, LLC
Manufacturer Address: 200 Twin Oaks Road
Kohler, WI, 53044 USA

Product Name & Description: KD610-750 Sound Level 2 & 3 Aluminum Enclosures
(With Hurricane Bracing Kit)
(Large Missile Impact, Cyclic Wind, Static Wind, and Anchorage
Certifications)

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-22 (ASD) and the Florida Building Code Eighth Edition (2023) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Performance Evaluation document # 23-68364 titled "KD610-750 Sound Level 2 & 3 Aluminum Enclosures", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report.

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

- Maximum-rated wind pressures via "Other Structures" wind methodology (ASCE 7, Chapter 29).
- Structural component connection integrity, verified by a unity check between tension and shear.
- Unit integrity via Finite Element Analysis.
- Anchorage integrity for unit, tank, and I-beam connections as specified in the respective Performance Evaluation document (i.e. engineering document).
- Maximum Missile Impact Rating per TAS 201 – Level "E"
- Maximum Cyclic Wind Pressures per TAS 203 & Table 1625.4

Discovery Energy, LLC: KD610-750 Sound Level 2 & 3 Aluminum Enclosures

- **TEST REPORTS**

The product has been tested per the following:

Test Lab	Test Report #	Test Standard	Test Description	Signed & Sealed By:
Intertek	i4190.01-109-18-r0	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Daniel C. Culbert, P.E.
Intertek	i4981.02-109-18-r0	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Joseph A. Reed, P.E.
Intertek	i4981.03-109-18-r1	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Joseph A. Reed, P.E.
Intertek	i4981.04-109-18-r0	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Joseph A. Reed, P.E.
Intertek	i7639.01-109-18-r1	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Joseph A. Reed, P.E.
Intertek	i8180.01-109-18-r0	TAS 201-94, TAS 203-94	Large Missile Impact Testing, Cyclic Wind Loading	Daniel C. Culbert, P.E.

Impact Resistance:

Large Missile Impact Resistance (Missile Level E) has been demonstrated as evidenced in previously listed test report(s), and is accounted for in the engineering design of this product.

Wind Load Resistance:

This product has been designed to resist wind loads as indicated on its respective Performance Evaluation document (i.e. engineering document).

Installation:

The product listed above shall be installed in strict compliance with the Performance Evaluation document (i.e. engineering document), along with all components noted therein.

The product components shall be of the material specified in the Performance Evaluation document (i.e. engineering document).

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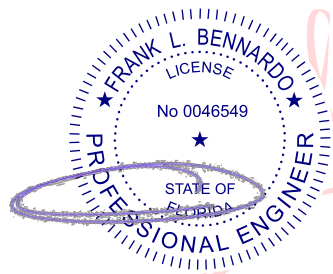
Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Performance Evaluation document (i.e. engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Performance Evaluation document will invalidate it. This product has been designed for use inside and outside of the High Velocity Hurricane Zone (HVHZ & NON-HVHZ).

Respectfully,



Digitally signed
by Frank
Bennardo
Date: 2024.07.02
12:49:36 -04'00'

Frank Bennardo, P.E.

ENGINEERING EXPRESS®

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