

ESDEC, INC.

MIAMI-DADE

TEST REPORT

SCOPE OF WORK

TAS 100 (A) TESTING ON ECOFASTEN QB-1, SOLAR PANEL ROOF ATTACHMENT

REPORT NUMBER

M9042.03-301-47 R1

TEST DATE

09/27/21

ISSUE DATE

09/30/21

REVISION 1 DATE

10/01/21

RECORD RETENTION END DATE

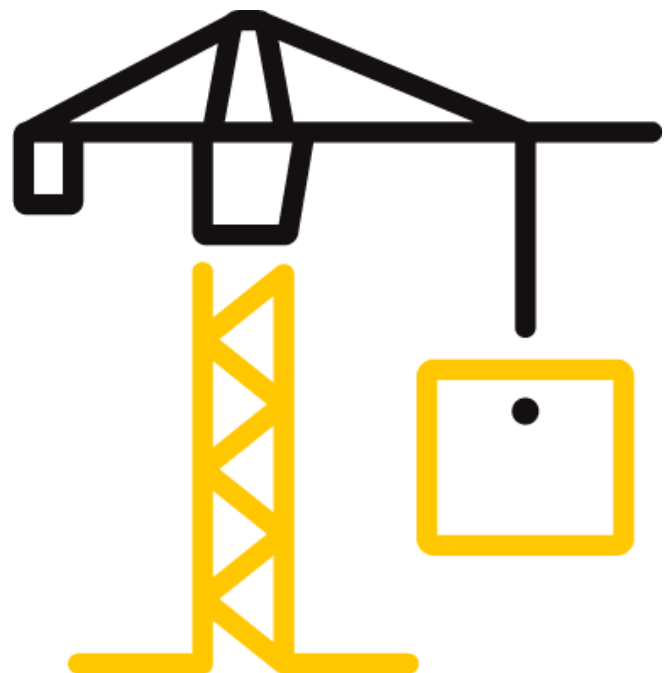
09/27/31

PAGES

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DOCUMENT CONTROL NUMBER

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TEST REPORT FOR ESDEC, INC.

Report No.: M9042.03-301-47 R1

Date: 10/01/21

REPORT ISSUED TO

ESDEC, INC.

28357 Industrial Boulevard
Hayward, California 94545

SECTION 1

SCOPE

Intertek Building & Construction (B&C) was contracted by Esdec, Inc. to perform TAS 100 (A) testing in accordance with Miami-Dade County requirements on their EcoFasten QB-1, Solar Panel Roof Attachment. Results obtained are tested values and were secured by using the designated test method(s). Testing was conducted at the Intertek B&C test facility in Fresno, California.

This report does not constitute certification of this product nor an opinion or endorsement by this laboratory.

For INTERTEK B&C:

COMPLETED BY:	Ricardo Cortez
TITLE:	Technician
SIGNATURE:	
DATE:	10/01/21

REVIEWED BY:	Tyler Westerling, P.E.
TITLE:	Operations Manager
SIGNATURE:	
DATE:	10/01/21

RC:ms

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SECTION 2

TEST METHOD(S)

The specimens were evaluated in accordance with the following:

TAS 100 (A)-95, *Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Windspeed Resistance of Soffit Ventilation Strip and Continuous or Intermittent Ventilation System Installed at the Ridge Area.*

SECTION 3

CALIBRATION

Windstream, water supply, and water distribution calibration were performed prior to testing.

SECTION 4

MATERIAL SOURCE

Test specimens were provided by the client. Representative samples of the test specimens will be retained by Intertek B&C for a minimum of ten years from the test completion date.

SECTION 5

EQUIPMENT

Vane Axial Fan (Wolf) – 65885

Spray Rack – 65885-1

Stopwatch – 64263

SECTION 6

LIST OF OFFICIAL OBSERVERS

NAME	COMPANY
Yann Schwarz	Esdec Inc.
Jae Hendrickson	Esdec Inc.
Dennis Janzen	Intertek B&C
Tyler Westerling, P.E.	Intertek B&C

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SECTION 7

TEST SPECIMEN DESCRIPTION

Roof Deck Description: An 8' 0" wide by 6' 0" long roof deck on a 2:12 slope was utilized. The roof deck did not utilize a ridge vent. The roof deck consisted of #2 Spruce-Pine-Fir nominal 2x4 rafters sheathed with 7/16" Oriented Strand Board (OSB). The rafters were spaced 24" on center. The OSB was secured to the rafters with #8 x 1-5/8" drywall screws spaced 6" on center around the perimeter and 12" on center at the intermediate supports. The OSB sheathing was covered with #30 felt paper underlayment and three-tab asphalt shingles.

Description/Installation (EcoFasten QB1): The test specimen was composed of a 3-7/8" diameter by 1-1/2" thick aluminum base and a 3-1/4" high aluminum vertical post with a 2" wide by 3-5/16" high aluminum L-Foot placed on top. The L-Foot mount was secured with one 5/16" x 1" machine screw with 1" captive washer over a 1-1/4" bonded washer to the vertical post from the top. The base is secured to the vertical post with one 5/16" x 3/4" machine screw through the bottom. The Roof attachment was secured with two 5/16" x 3" lag bolt through the base and into the rafters of the test deck. The Roof attachment was installed without sealant.

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SECTION 8

TEST RESULTS

Protocol TAS 100(A)-95, Test Procedure for Wind and Wind Driven Rain Resistance and/or Increased Windspeed Resistance of Soffit Ventilation Strip and Continuous or Intermittent Ventilation System Installed at the Ridge Area.

Test Date: 09/27/21

The temperature during testing was 29°C (85°F). The results are tabulated as follows:

Test Procedure: The wind speed intervals were conducted as follows:

Interval No.	Wind Speed (mph)	Time (min)	Water Spray
1	35	15	On
2	0	5	Off
3	70	15	On
4	0	5	Off
5	90	15	On
6	0	5	Off
7	110	5	On
8	0	5	Off

Test Results: The TAS 100(A) test results are as follows:

Wind Speed	Results
35 mph	0 oz.
70 mph	0 oz.
90 mph	0 oz.
110 mph	0 oz.

Result(s): Pass

Note 1: Tested at a 2:12 roof pitch.

Note 2: Two specimens were installed onto the test deck.

Note 3: Test results are applicable for asphalt shingle roofs having a slope 2:12 or greater.

Note 4: Tested without flashing but results applicable when installed with flashing.

Note 5: Results applicable when taller posts are used.

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SECTION 9

PHOTOGRAPHS



Photo No 1

Top Side of the Test Deck Before Testing

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Photo No. 2

Underside of the Test Deck Before Testing



Photo No. 3

110 mph



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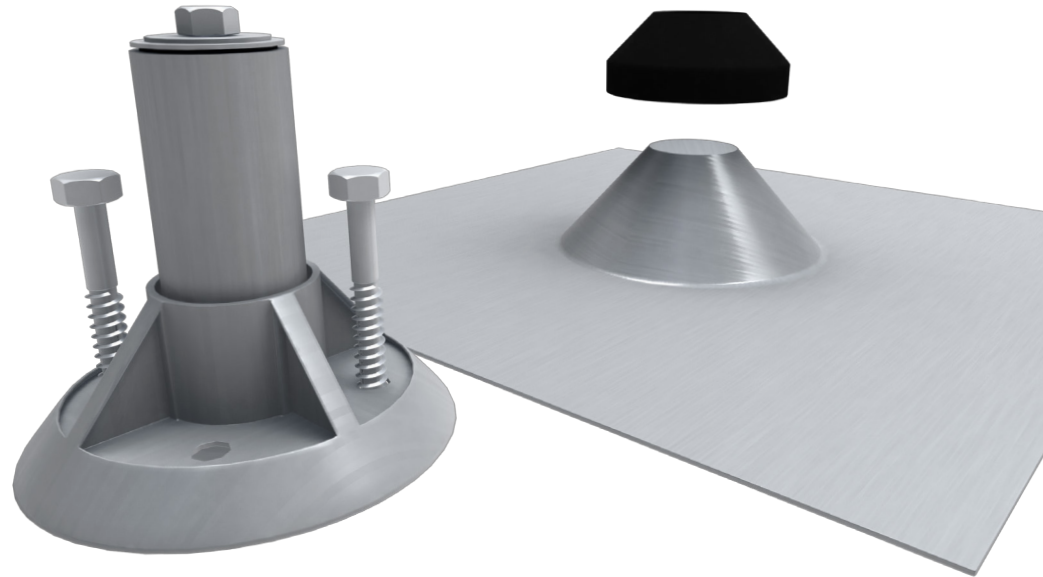
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SECTION 10
DRAWINGS

The test specimen drawings have been reviewed by Intertek B&C and are representative of the test specimen(s) reported herein. Test specimen construction was verified by Intertek B&C per the drawings included in this report. Any deviations are documented herein or on the drawings.



QB-1

SUPER-STRONG POST & BASE FOR A VARIETY OF ROOF TYPES

The super-strong QB-1 system includes a base that attaches to composition shingle, tile, shake, slate, and metal shingle roofs. QB-1 is an ideal solution for new residential construction projects, allowing for the roof to be shingled or tiled around the installed mount. Aluminum cone flashings sized to fit the post are also available.

FEATURES & BENEFITS

- Strongest post & base mount in the industry
- Structural-Attach & Direct-Attach options available
- Malleable tile level flashing conforms to fit the shape of any tile profile
- Ideal solution for new residential construction projects



Composition Shingle, Metal Shingle, Shake, Slate, Tile



Rail-Based

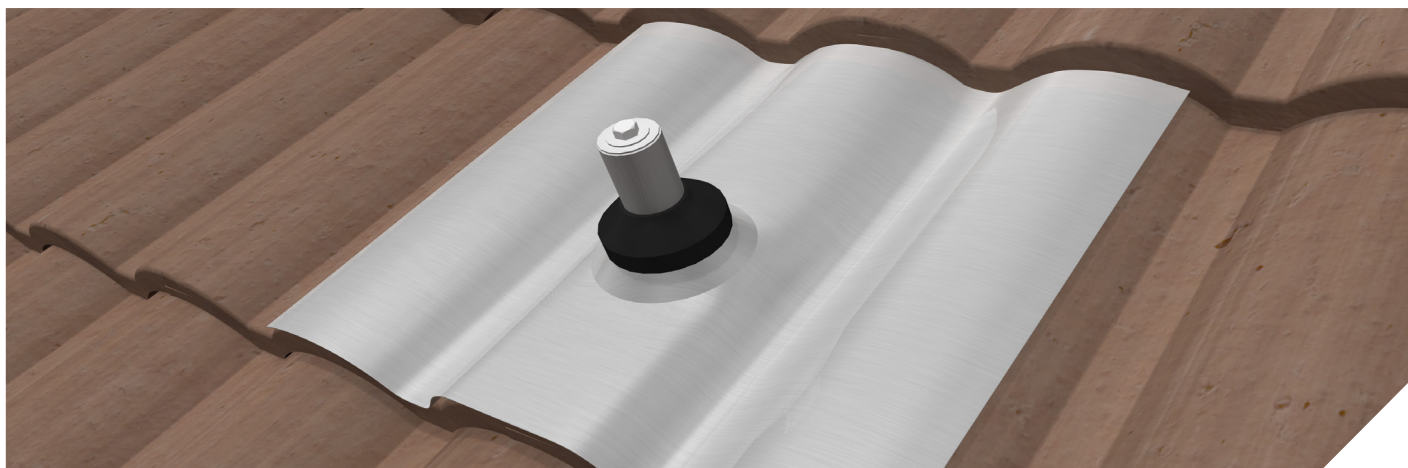



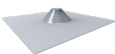
Structural-Attach Deck-Attach

THE INDUSTRY CHOICE FOR NEW HOME CONSTRUCTION



QB-1 SUPER-STRONG POST & BASE FOR A VARIETY OF ROOF TYPES



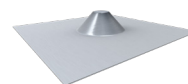
	PRODUCT IMAGE	PART NUMBER	PART DESCRIPTION	BOX QUANTITY	PALLET QUANTITY
BASE	INCLUDES (1) 5/16"-18 GRADE 8 HEX BASE-TO-POST SCREW				
		3017010	QB-1 BASE AL	20	2100
POSTS	INCLUDES (1) 5/16"-18 NYLON PATCH CAP SCREW W/WASHER AND (1) 5/16" X 1-1/4" BONDED SEALING WASHER				
		3017011	QB-1 POST 4.5" AL MLL	20	4860
		3017012	QB-1 POST 6.5" AL MLL	20	3240
FLASHINGS	INCLUDES (1) 5/16"-18 NYLON PATCH CAP SCREW W/WASHER AND (1) 5/16" X 1-1/4" BONDED SEALING WASHER				
		3017013	QB-1 FLASHING AL MLL 12X12"	12	N/A
		3017014	QB-1 FLASHING AL MLL 18X18"	12	N/A
BRACKETS	INCLUDES (1) 3/8"-16 X 1.25" HEX BOLT AND (1) 3/8"-16 FLANGE NUT FOR RACKING				
		3011018	L-FOOT SCL-101 BLK 3"	50	6000
		3011015	L-FOOT L-102 BLK 3"	50	6000
		3011017	L-FOOT SCL-101 MLL 3"	50	6000
		3011016*	L-FOOT L-102 MLL 5"	50	2400

*SPECIAL ORDER ITEM

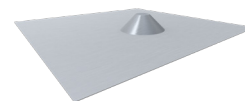
COMBINE BASE & CHOOSE POST HEIGHT:



CHOOSE YOUR FLASHING:



3017013
IDEAL FOR RETROFIT AND
NEW CONSTRUCTION
COMPOSITION SHINGLE ROOFS

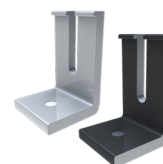


3017014
IDEAL DECK-LEVEL FLASHING
ON NEW CONSTRUCTION
TILE ROOFS

CHOOSE YOUR BRACKET:



3011018



3011017
3011015



3011016*



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Verified by: *PATOS*



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SECTION 11

REVISION LOG

REVISION #	DATE	PAGES	REVISION
0	09/30/21	N/A	Original Report Issue
1	10/01/21	2	Stamp Revised from CA to FL