EcoFasten®
For Installers. **By Installers.**

TILE
MOUNTING
SYSTEM

**MULTIPLE WATERTIGHT FASTENERS
FOR OPTIMUM STRENGTH**

INSTALLATION GUIDE

REVISION: 08/02/22

VERSION: V2.2

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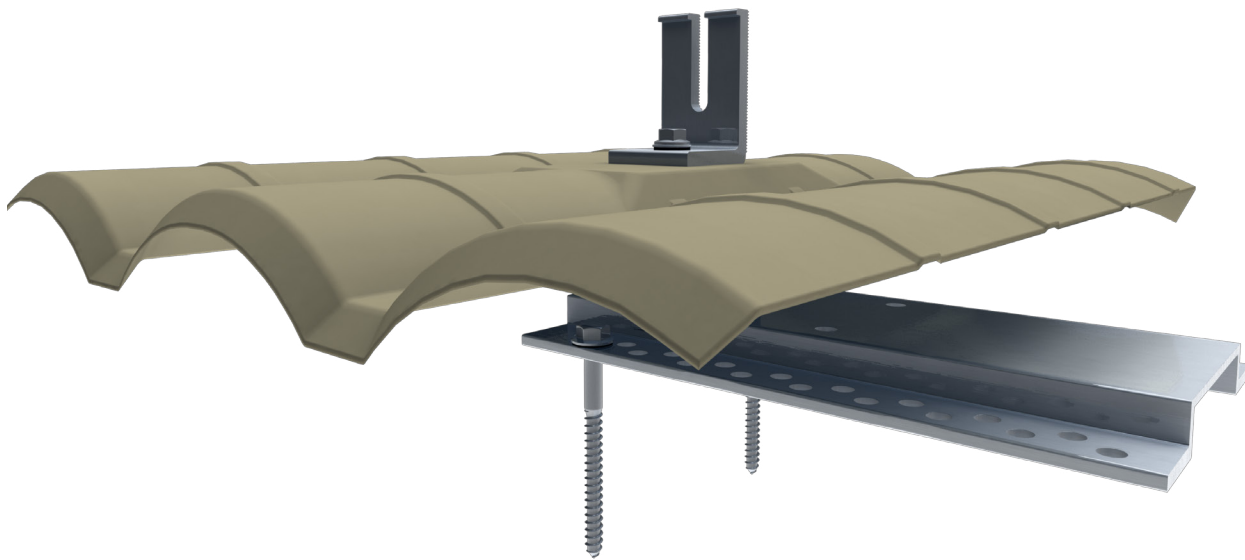
TILE MOUNTING SYSTEM

The Tile Mounting System, designed for use on new or existing (retrofit) tile roofs, is available in Flat, S, & W-shaped tile profiles. This innovative system replaces one concrete roof tile, eliminating the need for drilling or grinding tiles. Multiple fastener holes in the base plate allow attachment into the rafter regardless of location under the tile. When paired with an EcoFasten compression bracket, a watertight seal is created to protect the roof from any moisture.
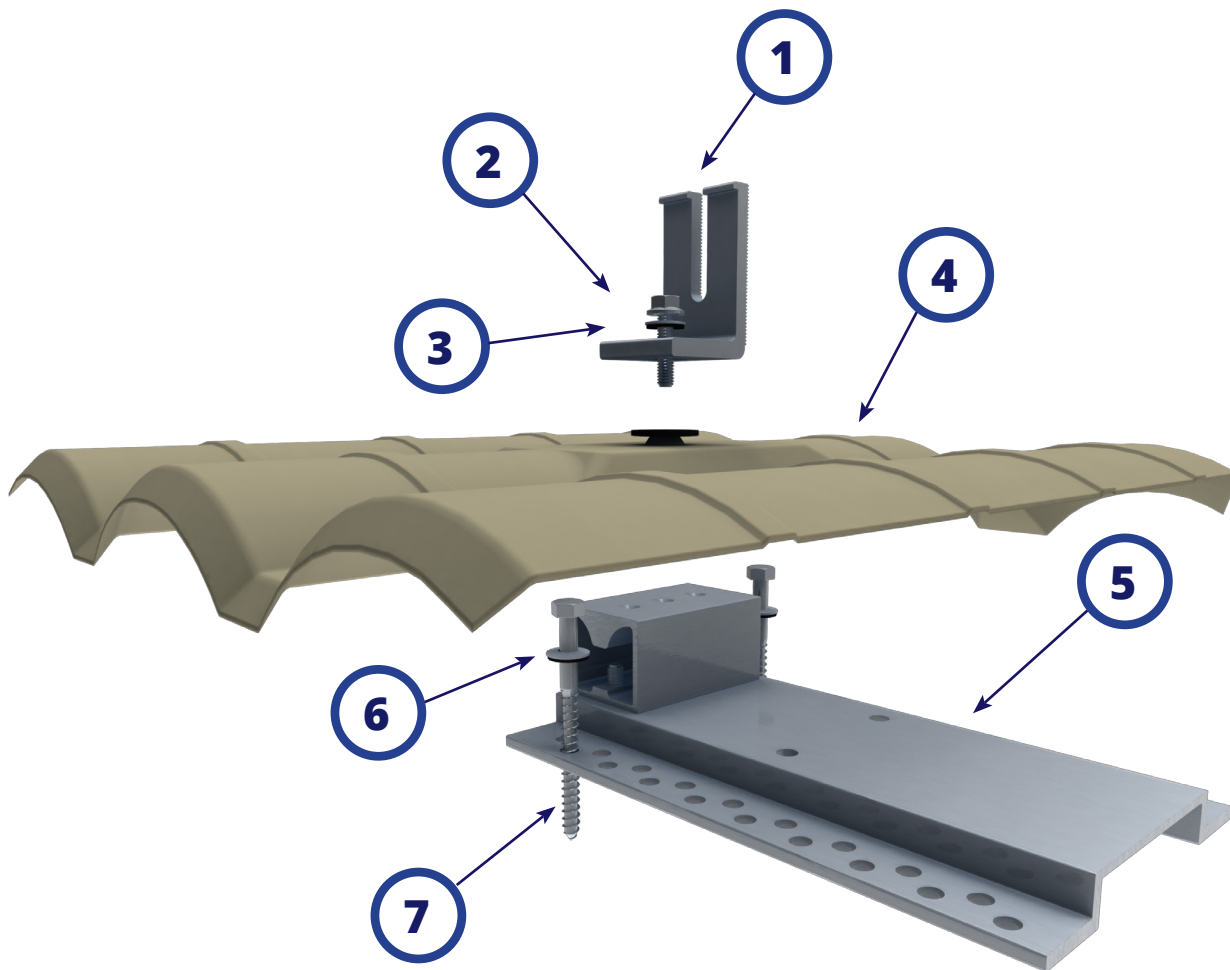
FEATURES

- Replaces a tile, extra tile can be used to replace broken tiles
- Two attachment points for optimum pull-out values
- Available in Flat, S and W-shaped tile profiles
- Sierra Tan finish blends with most tile roofs

TILE MOUNTING SYSTEM
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SYSTEM COMPONENTS

1. **L-FOOT SCL-101 MLL 3"**
   (OTHER OPTIONS AVAILABLE)

2. **5/16" MACHINE BOLT**

3. **5/16" EPDM BONDED WASHER**

4. **TILE FLASHING**
    (AVAILABLE IN FLAT, S AND W-SHAPED)

5. **TILE BASE**
   (AVAILABLE IN FLAT, S AND W-SHAPED)

6. **5/16" EPDM BONDED WASHER**
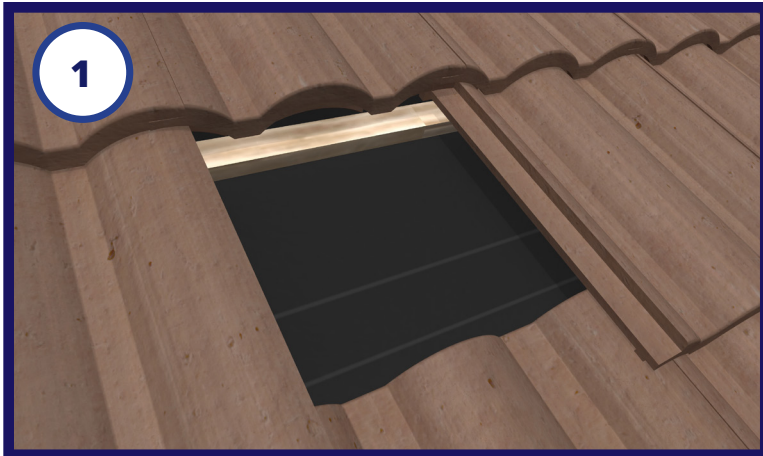
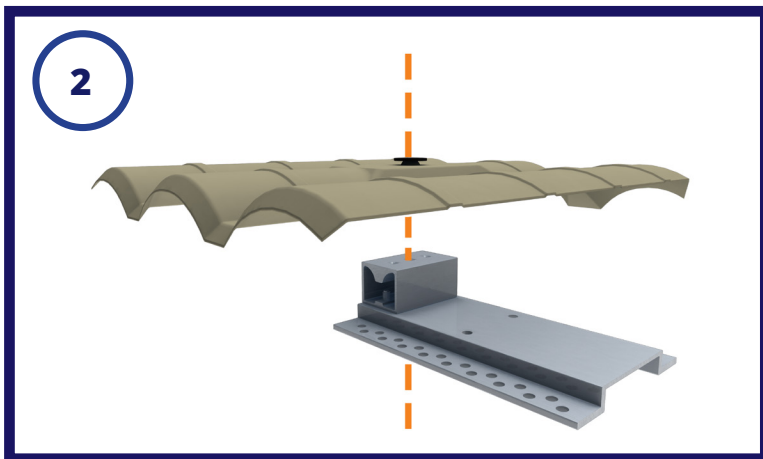7. **5/16"- 4" LAG BOLT**

COMPONENTS

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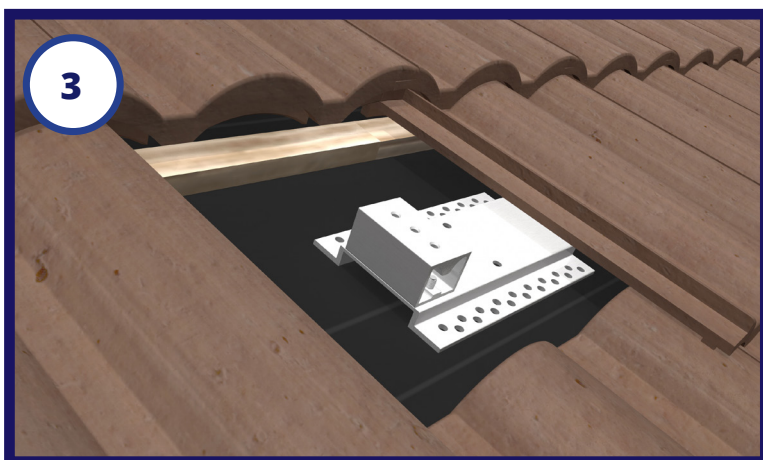
INSTALLING TILE MOUNTING SYSTEM

1. Remove a tile and locate and mark off the rafter underneath. Multiple tiles might have to be removed to make it easier to find each rafter and to give yourself room for installation.

2. Position the flashing so that it replaces the tile above the desired mount location. Then position the base plate pedestal so that one of the three holes on the pedestal aligns with the center hole in the flashing. Depending on the rafter location the base plate can be rotated in any direction.
Note: For proper alignment, it is easier to create a flashing template by cutting a flashing in half horizontally with tin snips. This will allow for easier alignment with the base plate.

3. Using the aligned base plate as template, predrill two pilot holes in rafter using a 7/32" drill bit. Backfill pilot holes with sealant.
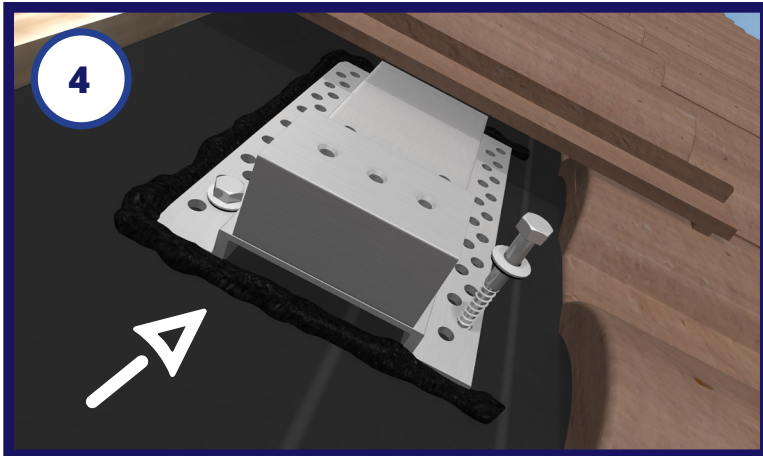

INSTALLATION

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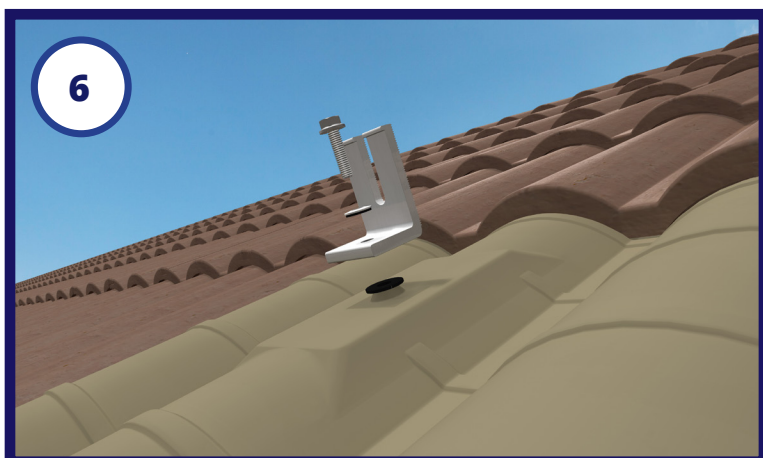**EcoFasten**®
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INSTALLING TILE MOUNTING SYSTEM

4. Place a bead of caulk around the base plate leaving the bottom edge exposed. Then install the base plate using the two 5/16" x 4" lag bolts w/ bonded washers included in the packaging.

5. Install the flashing so that the hole in the flashing lines up with the selected hole in the base plate pedestal below. The top of the flashing should be positioned under the tile above.

6. Attached an EcoFasten compression bracket using the provided 5/16" x 1.25" hex bolt and EPDM bonded washer. Torque to 120-150in-lbs.
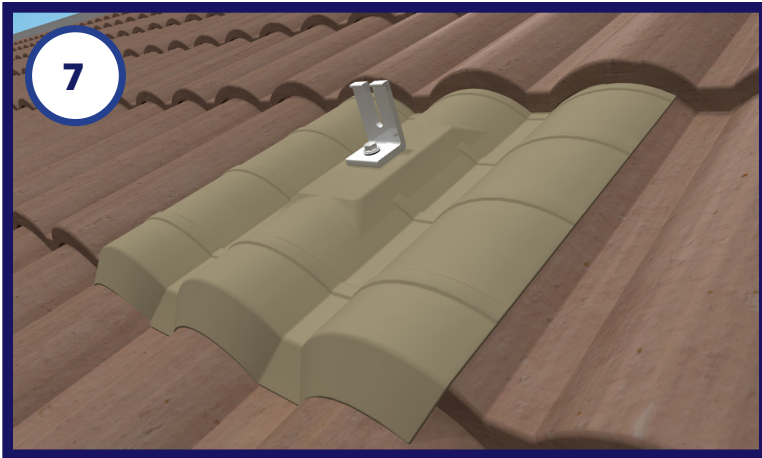
INSTALLATION

INSTALLING TILE MOUNTING SYSTEM

7. Re-align and insert other tiles that were removed in during the installation. To insure a proper fit of the flashing, each flashing can be molded with a rubber mallet or by hand to form properly over each tile.
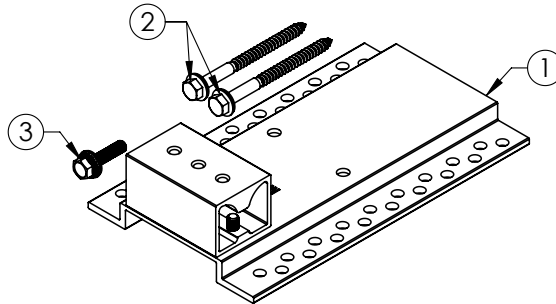
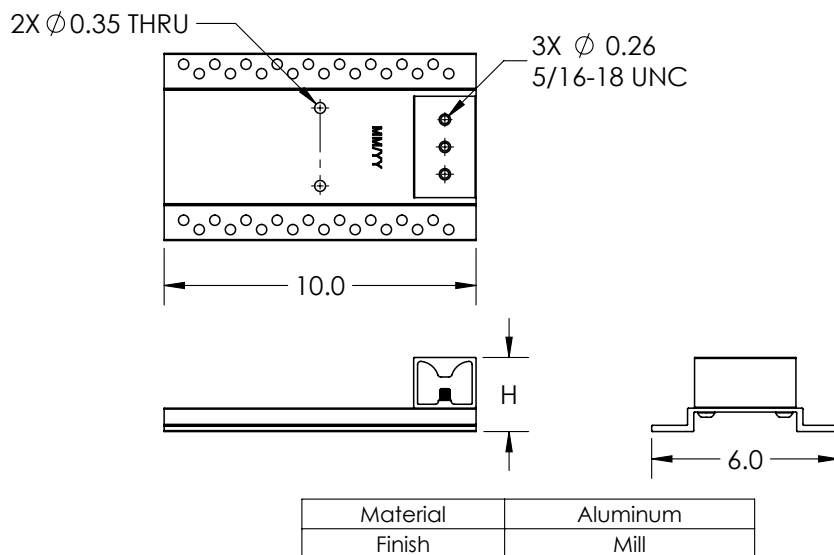INSTALLATION

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CUT SHEET: TILE BASE W AL

PART NUMBER	DESCRIPTION	HEIGHT (H)
3013010	TILE BASE FLAT AL	2.38"
3013011	TILE BASE S AL	3.75"
3013012	TILE BASE W AL	2.75"

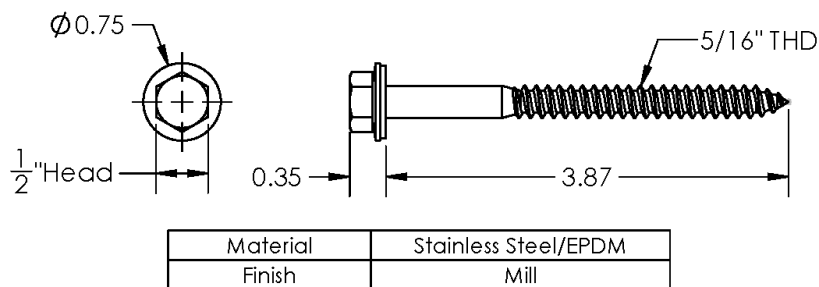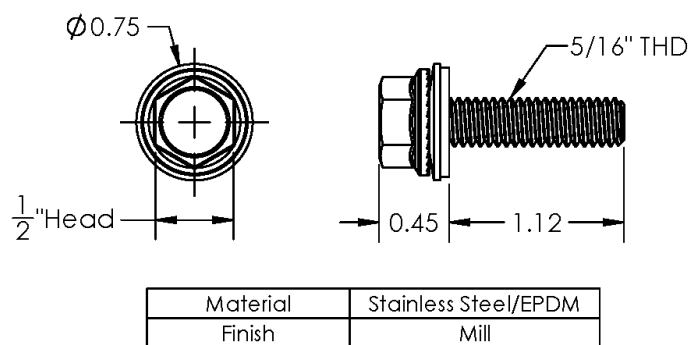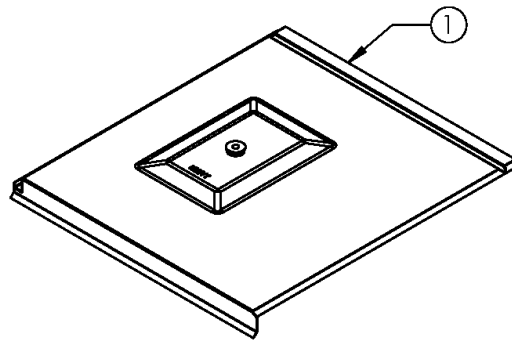| ITEM NO.	DESCRIPTION
1	TILEBASE LITE ASSEMBLY
2	SS LAG BOLT AND BONDED WASHER ASSEMBLY, 5/16-9 X 4 IN LONG
3	SS HEX FLANGE BOLT AND EPDM SEALING WASHER 5/16 ASSEMBLY

1) TILEBASE LITE ASSEMBLY

2X ⌀ 0.35 THRU

3X ⌀ 0.26
5/16-18 UNC

MM/YY

10.0

H

6.0

Material	Aluminum
Finish	Mill

REV.- CS1

LINE DRAWINGS

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CUT SHEET: TILE BASE W AL

2) SS LAG BOLT AND BONDED WASHER ASSEMBLY, 5/16-9 X 4 IN LONG

Ø0.75

5/16" THD

½"Head   0.35   3.87

Material	Stainless Steel/EPDM
Finish	Mill

3) SS HEX FLANGE BOLT AND EPDM SEALING WASHER 5/16 ASSEMBLY

Ø0.75

5/16" THD

½"Head   0.45   1.12

Material	Stainless Steel/EPDM
Finish	Mill

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LINE DRAWINGS

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CUT SHEET: TILE FLASHING FLAT AL ST

PART NUMBER	DESCRIPTION
3013013	TILE FLASHING FLAT AL ST
3013014	TILE FLASHING S AL ST
3013015	TILE FLASHING W AL ST

ITEM NO.	DESCRIPTION
1	TILE FLASHING FLAT-SIERRA TAN ASSEMBLY

1) TILE FLASHING FLAT-SIERRA TAN ASSEMBLY
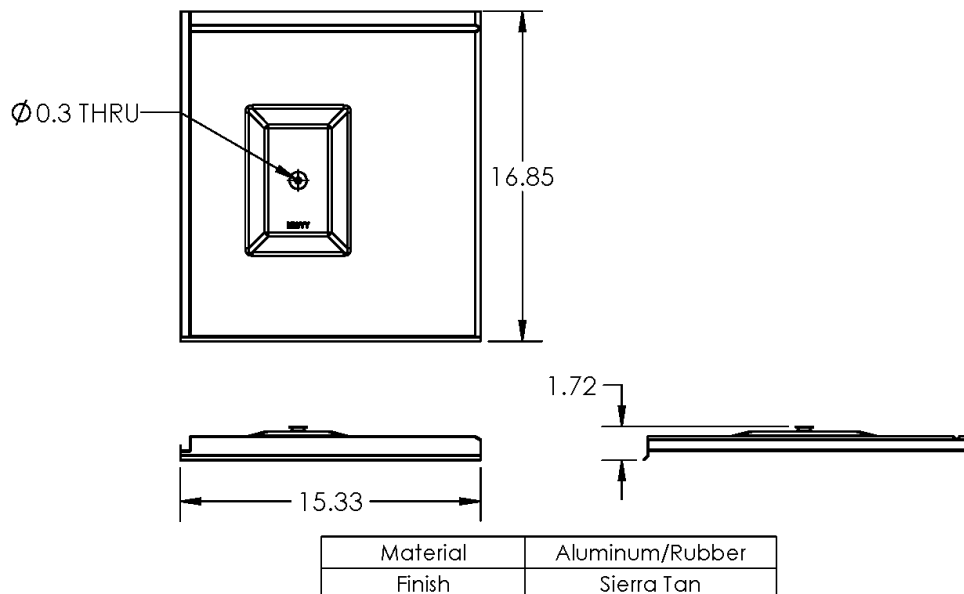
Ø0.3 THRU

16.85

15.33

1.72

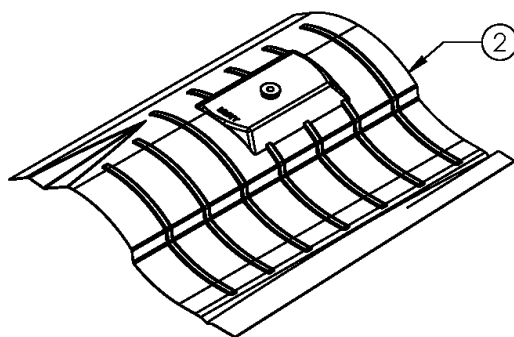| Material	Aluminum/Rubber
Finish	Sierra Tan

REV.- CS1

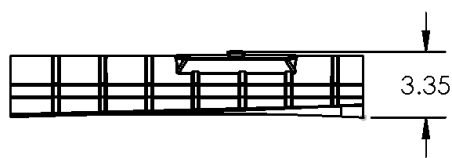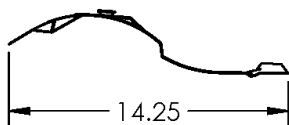LINE DRAWINGS

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CUT SHEET: TILE BASE S AL ST

ITEM NO.	DESCRIPTION
2	TILE FLASHING S-SIERRA TAN ASSEMBLY

2) TILE FLASHING S-SIERRA TAN ASSEMBLY

Ø0.3 THRU

18.0

14.25

3.35

Material	Aluminum/Rubber
Finish	Sierra Tan

REV.- CS1

LINE DRAWINGS

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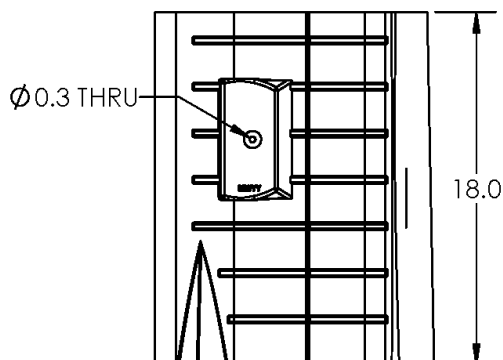**EcoFasten®**
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CUT SHEET: TILE FLASHING W AL ST
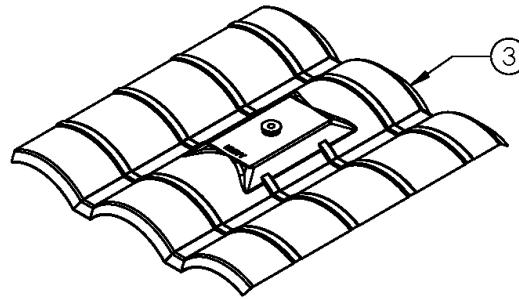
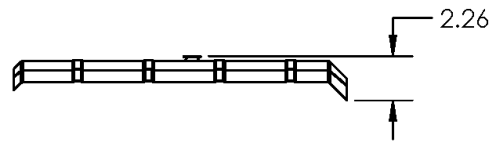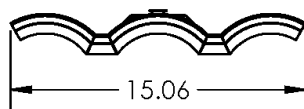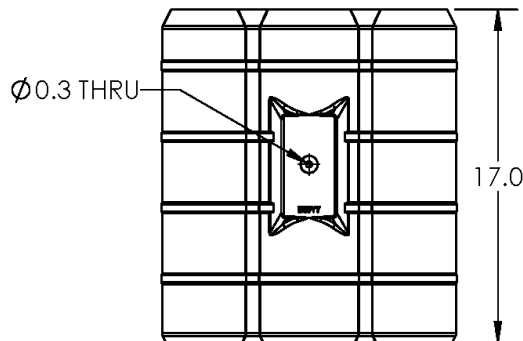| ITEM NO.	DESCRIPTION
3	TILE FLASHING W-SIERRA TAN ASSEMBLY

3) TILE FLASHING W-SIERRA TAN ASSEMBLY

Ø0.3 THRU

17.0

2.26

15.06

Material	Aluminum/Rubber
Finish	Sierra Tan

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CUT SHEET: L-FOOT L-102 BLK 3"

PART NUMBER	DESCRIPTION
3011015	L-FOOT L-102 BLK 3"
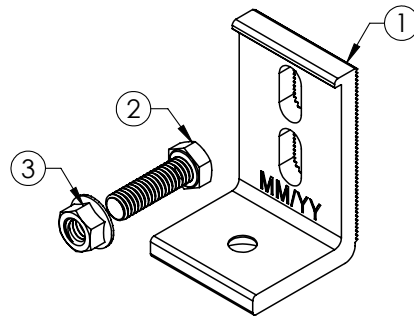
ITEM NO.	DESCRIPTION
1	L-102-3 ANOD BLK
2	SS HEX HD CAP SCREW, FULL THD, 3/8-16 UNC X 1.25 LONG
3	SS SERRATED FLANGE LOCK NUT, 3/8-16

1) L-102-3 ANOD BLK

∅ 0.38 THRU ALL

1.88

0.42

2X 0.41

2X 0.46

3.0

1.92

MM/YY
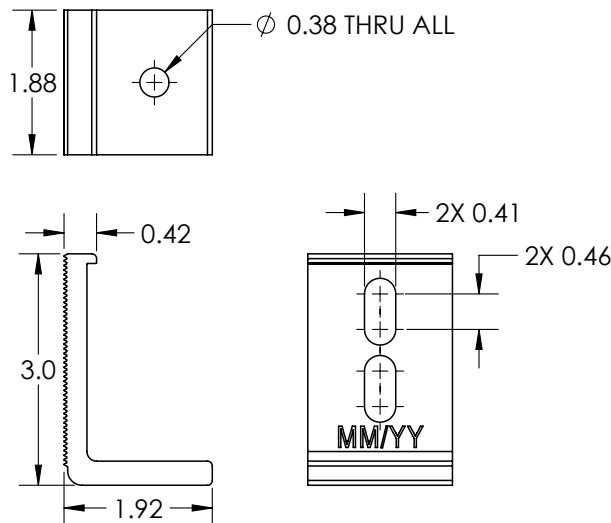
Material	Aluminum
Finish	Black

REV.- CS1

LINE DRAWINGS

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CUT SHEET: L-FOOT L-102 MLL 6"

PART NUMBER	DESCRIPTION
3011016	L-FOOT L-102 MLL 6"
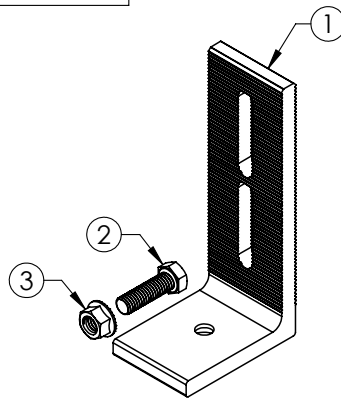
ITEM NO.	DESCRIPTION
1	L-102-6
2	SS HEX HD CAP SCREW, FULL THD, 3/8-16 UNC X 1.25 LONG
3	SS SERRATED FLANGE LOCK NUT, 3/8-16

1) L-102-6
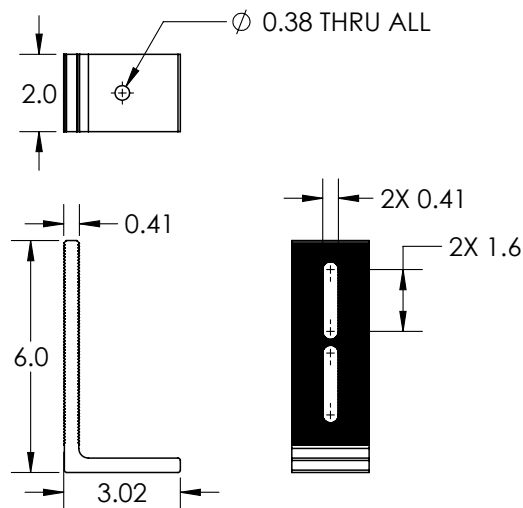
⌀ 0.38 THRU ALL

2.0

0.41

6.0

3.02

2X 0.41

2X 1.6

Material	Aluminum
Finish	Mill

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CUT SHEET: L-FOOT SCL-101 MLL 3"

PART NUMBER	DESCRIPTION
3011017	L-FOOT SCL-101 MLL 3"
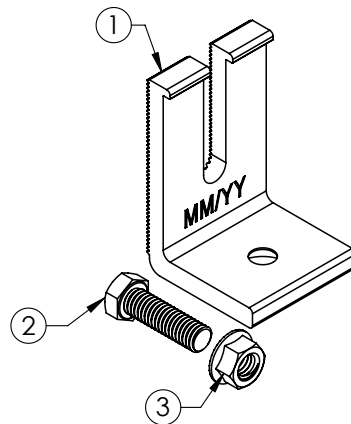
ITEM NO.	DESCRIPTION
1	L FOOT W/ STANDARD DIMPLE AND OPEN SLOT, 3 IN TALL MLL
2	SS HEX HD CAP SCREW, FULL THD, 3/8-16 UNC X 1.25 LONG
3	SS SERRATED FLANGE LOCK NUT, 3/8-16

1) L FOOT W/ STANDARD DIMPLE AND OPEN SLOT, 3 IN TALL MLL

⌀ 0.38 THRU ALL

1.88

0.42   0.41

1.75

3.0

MM/YY

1.92

Material	Aluminum
Finish	Mill

REV.- CS1

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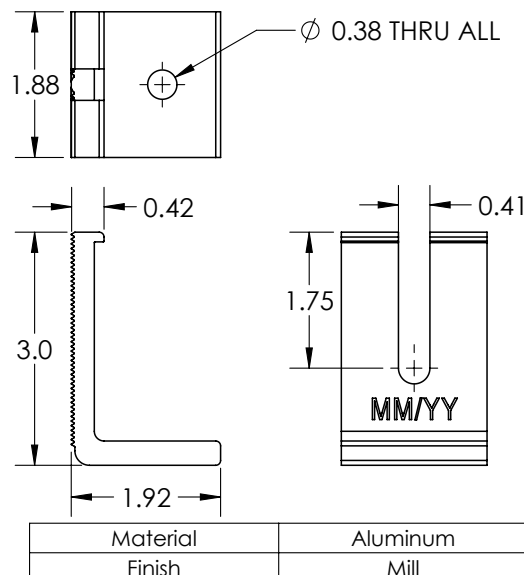
SYSTEM COMPONENTS

1. **Tile Base:**

   Available in three heights for Flat, W and S-shaped tile profiles. Consists of (1) aluminum tile base (1) aluminum pedestal, (1) 5/16"-18 stainless steel flange bolt, (1) 5/16" stainless steel EPDM bonded sealing washer, and (2) preinstalled 5/16"-18 button head hex drive. Ships with (2) 5/16" - 4" lag screws and (2) 5/16" EPDM bonded washers.

2. **Tile Flashing:**

   Available in Flat, W and S-shaped profiles. Consist of (1) aluminum flashing with top side pre-painted Siera Tan kynar finish and (1) preassembled integrated EPDM bushing.

3. **Fastener:**

   Two 5/16"x4" lag bolts. (included with Tile Base)

4. **Recomended Sealant:**

   If required by roof manufacturer, sealant shall be roof manufacturer approved.

DELIVERY / STORAGE / HANDLING

Inspect material upon delivery. Notify manufacturer within 24 hours of any missing or defective items. Keep material dry, covered and off the ground until installed.

PATENTS

Visit www.efpatents.com for patent information.

SPECIFICATIONS

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SPECIFICATIONS

DESIGN REQUIREMENTS

1. Bracket spacing to be recommended by project engineer.

2. Fasten attachment to roof using two lag bolts.

3. It is important to design new structures or assess existing structures to make sure they withstand retained loads.

EXAMINATION

1. Substrate: Inspect structure on which brackets are to be installed and verify that it will withstand any additional loading that may be incurred.

2. Notify General Contractor of any deficiencies before installing EcoFasten Solar brackets.

3. Verify that roofing material has been installed correctly prior to installing solar attachment bracket.

INSTALLATION

Comply with architectual drawings and project engineer's recommendation for location of system. Comply with Manufacturer's written installation instructions for installation and layout.