EZ Metal Roof Mount with “L” foot and Standoff: 2 , 3, 5 inch.

Patent # US 8136311B and Patents Pending

INSTALLATION INSTRUCTIONS

Please Read Carefully Before Installing

Designed to standards EC002-2011 and UL-441-96 Rain Test

Document Number 2012-K10082a

WARNING NOTICES:

1. Installer is responsible for use and application **of Personal Safety Equipment** including but not limited to: fall protection, eye and hand protection, proper use of electrical cords, use of ladders, and electrical hazard protection.
2. **Torque values** are called out in this Instruction Manual and must be adhered to.
3. The use of **anti-seize compound** such as Permatex anti-seize lubricant is recommended for all threaded parts.

Contents:

Specifications:

The pullout performance of the EZ Meta Roof Mount is entirely dependent upon the strength and correct mounting of the Lag Bolt in the roof joist. The pilot hole must not be oversized, the wood must be in serviceable condition, and the lag bolt must have at least 2 inches of thread in the joist timber.

Our tested specification is:
Pullout (uplift):2160 lbs lowest of 3 tests
Lateral Deflection: 840 lbs. lowest of 3
Support (Dead load): 2500 lbs.
Rain test: UL 441-96 designed to.

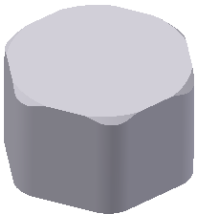
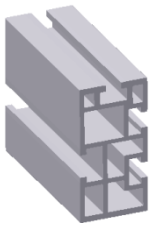
These instructions cover the installation of the EZ Metal Roof mount product line including the following:

- **EZ Metal Roof mount with “L” foot, available in silver or black finish K10082-xxx**

- **EZ Metal Roof mount with standoff, 2-3-5 inch K10064-xxx**

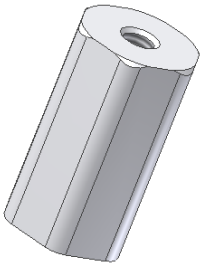
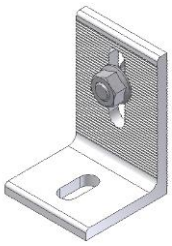
- **SunPump “L” foot connection to standard and light rail. K10066-001 and 002 tall.**

Part List for EZ Metal Roof Mount Kit K10082-001 with "L" foot and K10064-XXX with standoff (AL rail not included in the kit):

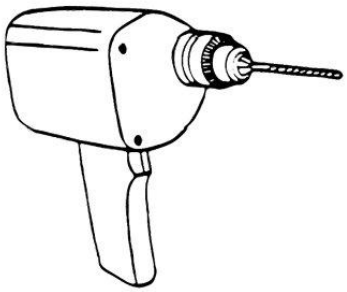
 AL Metal Mount A20051 & Incl. Sealing Washer	 5/16X4 Stainless Steel Lag Bolt B15015-004	 AL Hex Cap A20066-001 and – BK1
 AL L Foot Included with EZ Metal Roof Mount Kit K10064-xxx	 AL Rail (Not Included)	

*Note that –xxx variants are Black, extra height, extra length, and other options.

Different Parts for Standoff Mount, "L" foot on Standoff, and "C" Bracket:

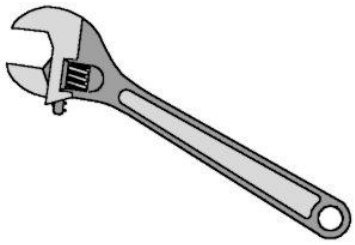
 Standoff- 2-3-5-7 in. Part of EZ Roof Kit K10064-xxx	 L Foot Kit K10066-001 and -XXX	

Tools and Supplies needed for Installation:



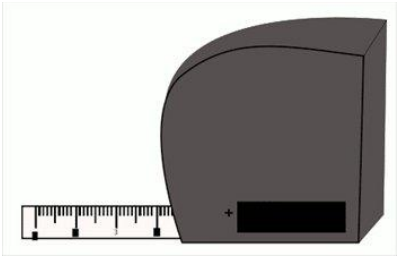
Electric Drill

Drill Bit for lag bolt, 7/32 inch diameter.



Adjustable Crescent wrench to fit 1 1/16 inch Hex nut.

3/8 Socket wrench with 9/16 deep socket for lag screws and 7/16 deep socket for mid and end clamps.



Tape measure to layout roof installation.

Anti-seize compound (Permatex 80071 or equavalent).

Caulk gun and silicon sealant (Trempro 644) construction sealant or equavelent).

Other items that can be useful:

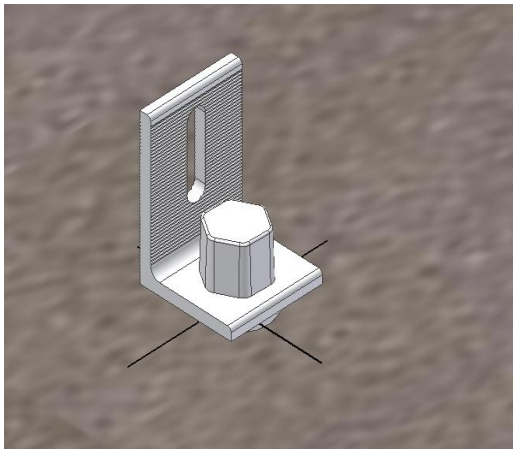
- Chalk or roofers marker to layout roof.
- Adaptor for 3/8 inch socket to drill chuck
- Torque wrench with 9/16 and 1 1/16 sockets. (Lag bolt and Hex cap)

Installation of the EZ Metal Roof Mount Kit K10082-xxx

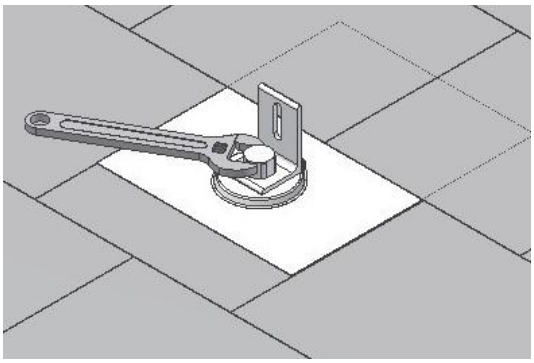
1. Positively locate the center of joist or purlin under the roof. The EZ Metal Roof mount **must** be mounted on a flat portion of the metal roofing to seat and seal properly. Drill the pilot hole for the lag bolt with a 7/32 drill bit. For maximum strength, the hole should be 3 inches in depth in the wood, and a drill stop may be used to insure this.

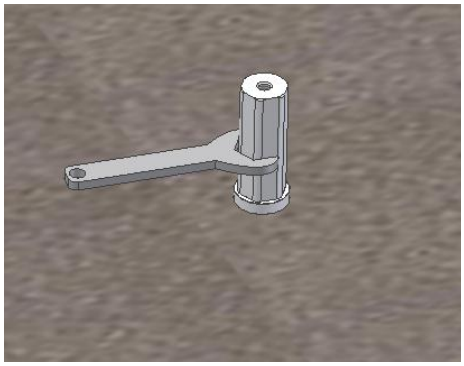
2. Clean sawdust, and fill hole with sealant. Install AL metal mount to the roof by using a 5/16 lag bolt (Use Trempro 644 Construction Silicon Sealant or Equivalent). Make sure the washer on the bottom of the Metal Mount is positioned correctly.

3. Insert the “L” foot over the threaded shank of the Metal Roof Mount and fasten in place using the Hex Nut as shown below.

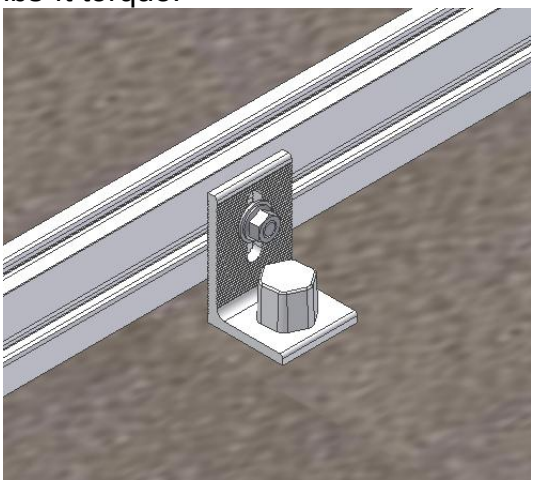


4. Tighten the Hex nut to a torque value of 15 ft. Lbs. using a crescent wrench or torque wrench as shown in the diagram below.

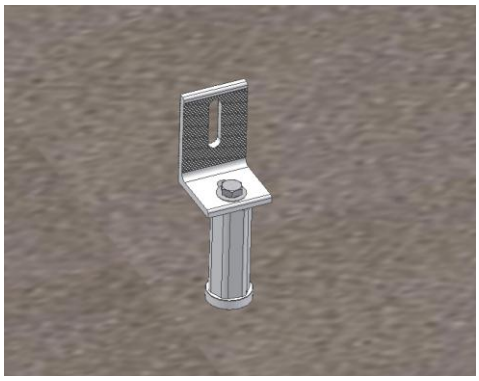




5. Install AL rail (not supplied with the kit) to the “L” foot to the specific orientation. Then, tighten AL hex cap and flange nut to 20 lbs-ft torque.



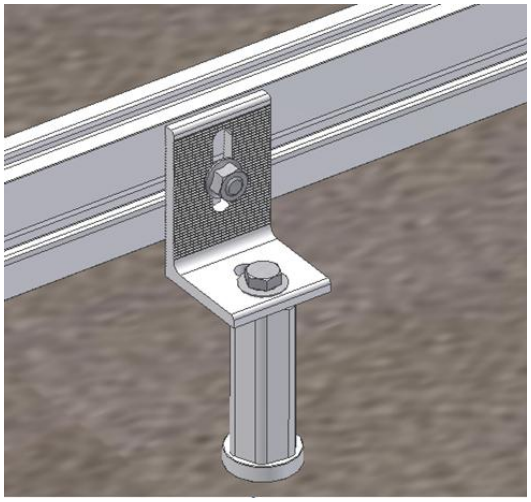
3. If an “L” foot is to be used, attaché to the top of the Standoff using the 3/8 by 1 inch stainless bolt supplied with the standoff.

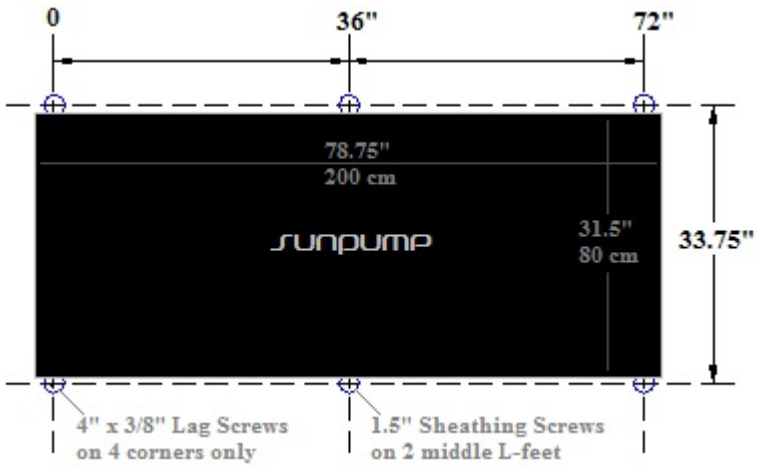


4. Using the 3/8 inch bolt and flange nut supplied with the “L” foot to attach the rail.

Installation of the EZ Roof Mounting Standoff Kit K10064-xxx

1. Mount the AL shoe the same as shown above in steps 1 and 2.
2. Hand tighten the standoff onto the Metal Roof mount. The use of Ant-seize paste such as Permatex 80071 is recommended to prevent the Aluminum threads from seizing. Tighten to 20 ft. lbs as shown in the diagram below.





10 Year Product Warranty and 5 Year Finish Warranty

Terms and Conditions

SunPump warrants the original Purchaser that each Mounting Structure to be free from defects in materials and workmanship for a period of 10 years except for the finish, which shall be free from visible peeling, or cracking under normal atmospheric conditions for a period of 5 years starting from 1) the date of installation at the original site or 2) 30 days after the original purchase. The Finish Warranty does not apply to any foreign residue deposited on the finish. The Finish Warranty Is void if the practices specified by AAMA 608& 610-02-"Cleaning and Maintenance for Architecturally Finish Aluminum" (www.aamanet.org) are not followed by Purchaser. The limited warranty is void if the products are not installed properly in accordance with SunModo's Written Installation instructions, or is not used for the purpose for which it is designed, or the product has been modified, repaired, or reworked not authorized by SunPump.

SunPump Limited Warranty

The Warranty does not cover the product that is damaged resulting from shipping, storage, and misuse or abuse during installation. The limited warranty covers the cost of parts to repair or replace the products to a proper working condition. Transportation and incidental costs associated with warranty items are not reimbursable SunPump Limited Warranty only covers its products and under no circumstances will be liable for indirect or consequential damages resulting from or related use by original purchaser of the product.

Address all inquiries to:

SunPump Solar Inc
Ph: 866-855-2017

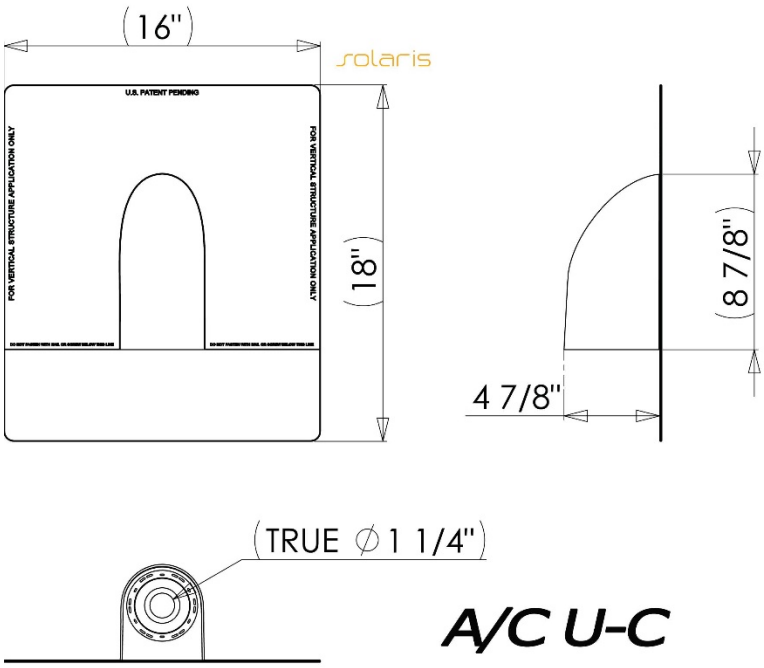
Web: www.sunpump.solar
Dealers: sunpump.freshdesk.com

Insulated Line-Set Flashing

The AC-UC is a one piece UV-proof plastic composite that is ideal for Shingle Roofs.

The Scoop is under 5” and has a 1.25” EPDM seal molded in for the insulated line set pair. Look at the install above for the location at the center of 8 panels.

USA made. Comes in boxes of 4.



ROOFING — VENTING, DRAINS, AND PLUMBING COMPONENTS

PLUMBING FLASHINGS

5-IN-1 PLUMBING PIPE FLASHING

- The 5-in-1 replaces 5 separate plumbing flashings with one small display box, freeing up valuable shelf space
- Knock down display box contains the flashings, while still making the 5-in-1 flashing very visible
- Each 5-in-1 flashing comes with instructions
- Each 5-in-1 flashing is bar coded for automated check outs
- Rubber is able to maintain tension at contact with ABS pipe, unlike flashing made with PVC
- Flashing has a 4" base flange for extra protection

Meets CSA B272-93
Meets UPC PS64-98

Shingle Roof

Fits:

• 1-1/4" Plastic • 1-1/2" Copper • 1-1/2" Plastic • 2" Copper • 2" Plastic • 3" Plastic • 4" Plastic

STOCK #	MODEL	PCS/CTN	WEIGHT (LBS/CTN)	PRICE/EA
887700	5-in-1	25	15.55	$18.00

MASTER FLASH® PIPE FLASHINGS

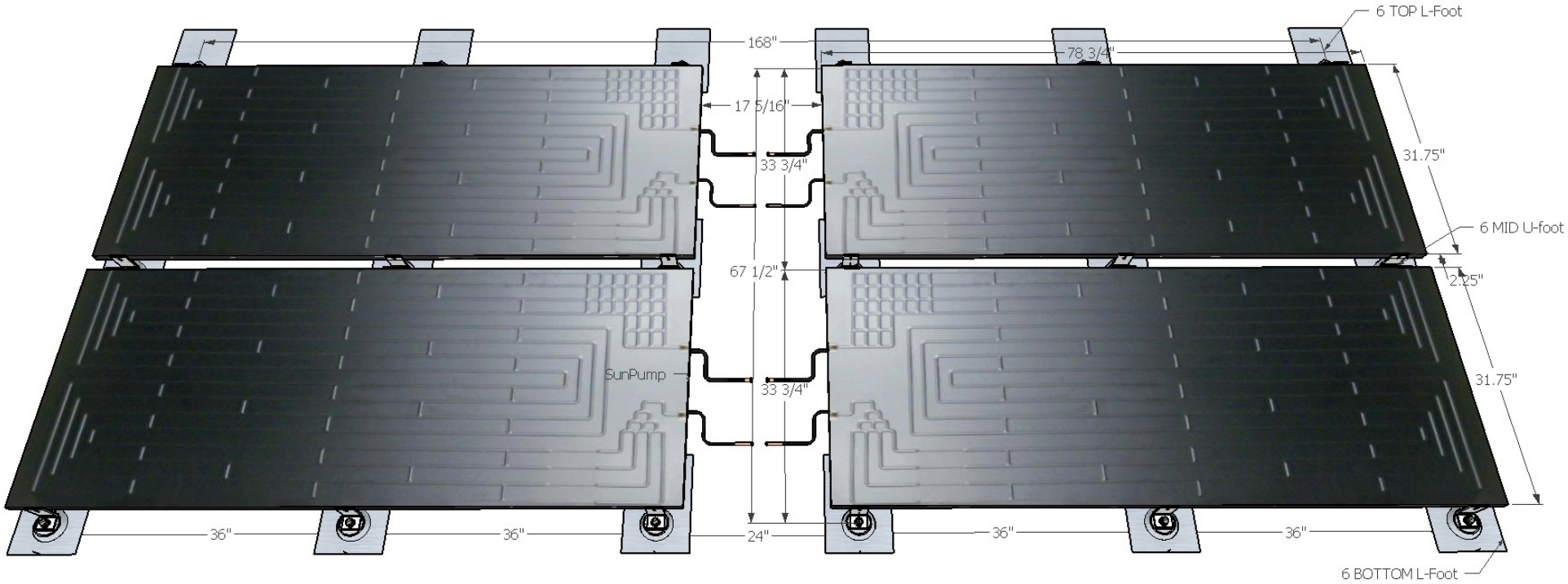
- Designed to seal on any panel configuration and roof pitch
- Made of EPDM with a flexible aluminum alloy base
- Covers all applications from -65°F to 275°F
- UPC listed

STOCK #	MODEL	MFG. #	DESCRIPTION	CTN QTY	PRICE
C680001	19110	No. 1	1/4" – 2" Pipe Flashing	15	P.O.A.
C680001	19111	No. 2	1-3/4" – 3-1/4" Pipe Flashing	15	P.O.A.
C680001	19112	No. 3	1/4" – 4" Pipe Flashing	15	P.O.A.
887706	19113	No. 4	3" – 6" Pipe Flashing	10	$36.00
C680001	19114	No. 5	4" – 7" Pipe Flashing	10	P.O.A.
887708	19115	No. 6	5" – 9" Pipe Flashing	10	49.00
C680001	19116	No. 7	6" – 11" Pipe Flashing	10	P.O.A.
887710	19117	No. 8	7" – 13" Pipe Flashing	5	90.00
C680001	19118	No. 9	10" – 18" Pipe Flashing	5	P.O.A.

Metal Roof

SunPump™ Solar Evaporators

4 Panel Group = Quad = 1 box of 2 rights + 2 lefts.



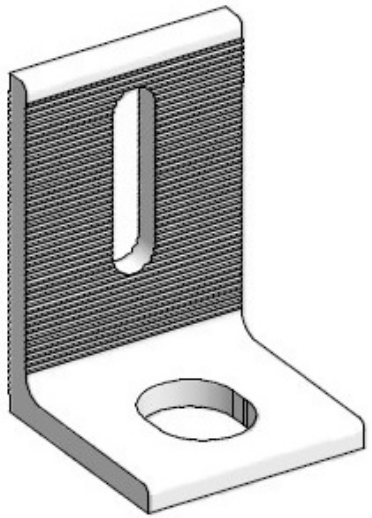
IMPORTANT! Leak test strictly using Nitrogen gas at **150-200 PSI** range. **Do not exceed maximum 300 PSI.** Keep moisture out of tubes using plugs.

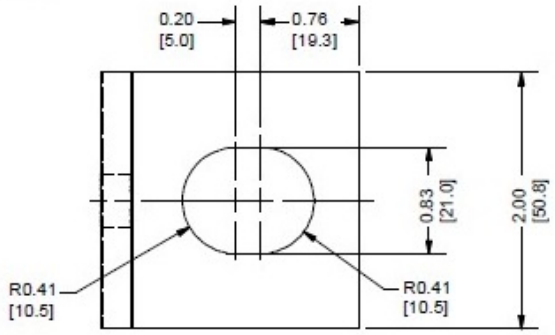
Panels must be installed in **Landscape orientation** (horizontal), with the ¼" liquid tube as the bottom, and 3/8" gas tube above. Equal flow is required.

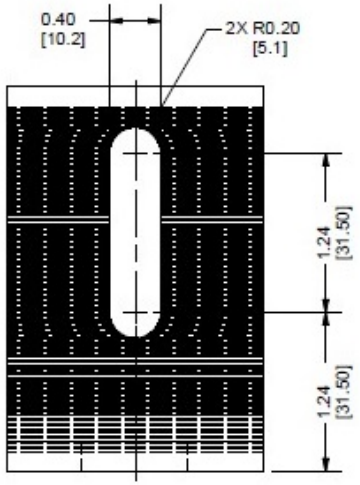
NOTES: Panels are 200 x 80 x 2.5 cm (78.75" x 31.75") must be installed horizontally, prefer copper pipes connected in the middle. Shown above for 24" rafters with 12 L-Foot lag screws at 0', 6', 8' and 14' into truss centers. Middle 6 L and U-Foot each depend on 4 S.S. screws into sheathing. Plan for the refrigeration tubing roof flashing to be in the middle – not under a panel. This example of 4 panels is called a Quad, is a typical grouping for 5-7 kW, and is used to form Arrays of 2 Quads for a 14 kW, or 1/2 for 3.5 kW.

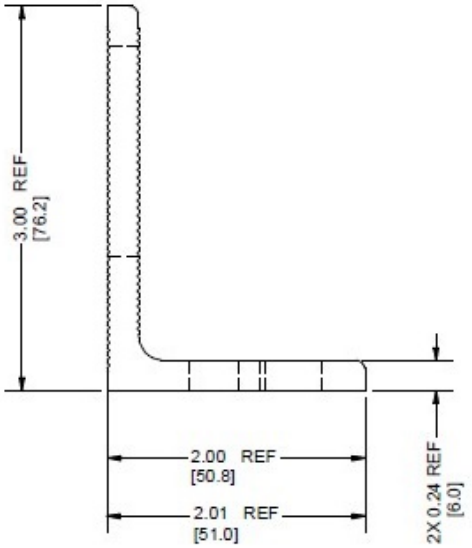
PROJECT: **SunPump Panel** Service Support: SunPump.freshdesk.com	TITLE: **SOLAR EVAPORATOR 4 PANEL BANK**	DWG. No. **1**	REV. **B**
DRAWN BY: B. GRAY © info@sunpump.solar	**SunPump** info@sunpump.solar	REVISION DATE: June 20, 2015	

SunPump™ L-Foot Bracket.







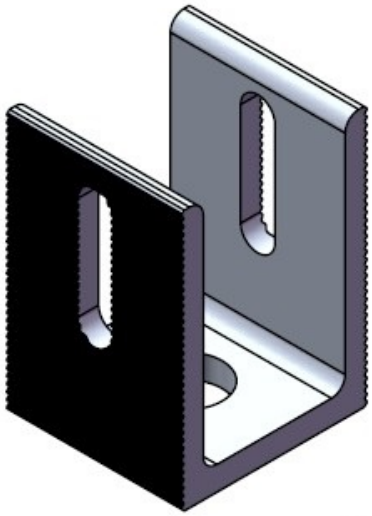


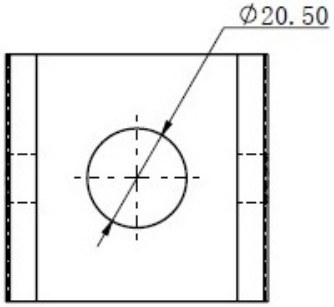
NOTES: Dimensions shown are inches and (millimeters).

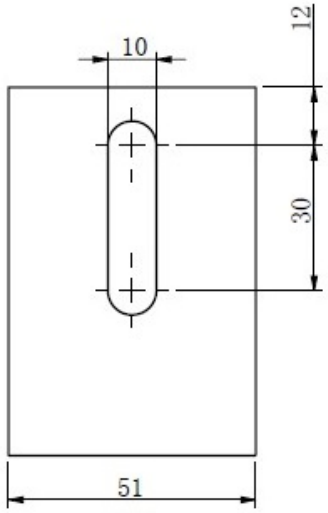
Recommend attaching L and U-foot brackets to thermal panels on the ground, then use them on the roof as a drilling template for accuracy and speed.

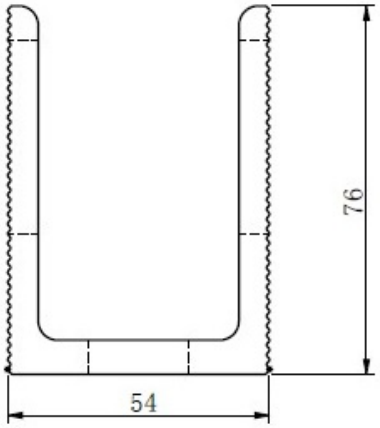
PROJECT: **SunPump Panel**	TITLE: **L-FOOT BRACKET**	DWG. No. **1**	REV. **A**
solarisgeothermal@gmail.com			
DRAWN BY: B. GRAY ©	**Sunpump**	REVISION DATE: April 23, 2015	

SunPump™ U-Foot Bracket.









NOTES: Dimensions shown are inches and (millimeters).

Recommend attaching L and U-foot brackets to thermal panels on the ground, then use them on the roof as a drilling template for accuracy and speed.

PROJECT: **SunPump Panel**	TITLE: **U-FOOT BRACKET**		DWG. No. **2**	REV. **A**
solarisgeothermal@gmail.com				
DRAWN BY: B. GRAY ©	**Sunpump**	REVISION DATE: April 23, 2015		