

City of Portland, Maine - Building or Use Permit Application

389 Congress Street, 04101 Tel: (207) 874-8703, Fax: (207) 874-8716

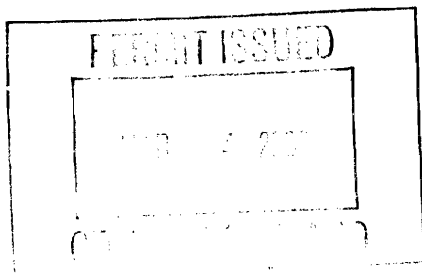
Permit No: 09-0150	Issue Date: 3/4/09	CBL: 425 1004001
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Location of Construction: 142 PRESUMPCOT ST	Owner Name: 142 PRESUMPCOT LIMITED LI	Owner Address: 142 PRESUMPCOT ST	Phone:
Business Name:	Contractor Name: Revision Energy LLC	Contractor Address: 109 Fox Street Portland	Phone 2072216342
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	Zone: I-L/PS

Past Use: Commercial - office, light manufacturing & warehouse	Proposed Use: Commercial - Office, light manufacturing & warehouse -Install wood boiler and Solar Hot water w/ 2 roof panels	Permit Fee: \$100.00	Cost of Work: \$8,000.00	CEO District: 4
Proposed Project Description: Install wood boiler and Solar Hot water w/ 2 roof panels - Froling Turbo 3000 Woodboiler & apricus AP20 Solar Thermal collectors		FIRE DEPT: <input checked="" type="checkbox"/> Approved <input type="checkbox"/> Denied * See Conditions	INSPECTION: Use Group: B Type: SB FBC-2603 IMC-2003	
		Signature: <i>KG</i>	Signature: <i>AL</i>	
PEDESTRIAN ACTIVITIES DISTRICT (P.A.D.)				
Action: <input type="checkbox"/> Approved <input type="checkbox"/> Approved w/Conditions <input type="checkbox"/> Denied				
Signature: _____ Date: _____				

Permit Taken By: Ldobson	Date Applied For: 02/24/2009	Zoning Approval		
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- This permit application does not preclude the Applicant(s) from meeting applicable State and Federal Rules.
- Building permits do not include plumbing, septic or electrical work.
- Building permits are void if work is not started within six (6) months of the date of issuance. False information may invalidate a building permit and stop all work..



Special Zone or Reviews	Zoning Appeal	Historic Preservation
<input type="checkbox"/> Shoreland	<input type="checkbox"/> Variance	<input checked="" type="checkbox"/> Not in District or Landmark
<input type="checkbox"/> Wetland	<input type="checkbox"/> Miscellaneous	<input type="checkbox"/> Does Not Require Review
<input type="checkbox"/> Flood Zone	<input type="checkbox"/> Conditional Use	<input type="checkbox"/> Requires Review
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Interpretation	<input type="checkbox"/> Approved
<input type="checkbox"/> Site Plan	<input type="checkbox"/> Approved	<input type="checkbox"/> Approved w/Conditions
Maj <input type="checkbox"/> Minor <input type="checkbox"/> MM <input type="checkbox"/>	<input type="checkbox"/> Denied	<input type="checkbox"/> Denied
Date: 2/25/09 <i>AL</i>	Date: _____	Date: _____

CERTIFICATION

I hereby certify that I am the owner of record of the named property, or that the proposed work is authorized by the owner of record and that I have been authorized by the owner to make this application as his authorized agent and I agree to conform to all applicable laws of this jurisdiction. In addition, if a permit for work described in the application is issued, I certify that the code official's authorized representative shall have the authority to enter all areas covered by such permit at any reasonable hour to enforce the provision of the code(s) applicable to such permit.

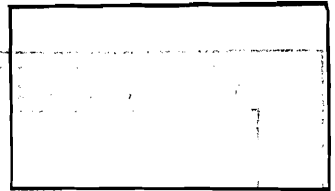
SIGNATURE OF APPLICANT	ADDRESS	DATE	PHONE
RESPONSIBLE PERSON IN CHARGE OF WORK, TITLE		DATE	PHONE



SHW + Heat

FILL IN AND SIGN WITH INK

APPLICATION FOR PERMIT HEATING OR POWER EQUIPMENT



To the INSPECTOR OF BUILDINGS, PORTLAND, ME.

The undersigned hereby applies for a permit to install the following heating, cooking or power equipment in accordance with the Laws of Maine, the Building Code of the City of Portland, and the following specifications:

Location / CBL 142 Presumpscot 42514 Use of Building Commercial Bldg Date Feb
 Name and address of owner of appliance Revision Energy 142 Presumpscot
 Installer's name and address Revision Energy 142 Presumpscot St Telephone 323-1805

Location of appliance:

- Basement
- Attic
- Floor Wood Boiler
- Roof Solar Hot Water

Type of Fuel:

- Gas
- Oil
- Solid

Appliance Name: Froling Turbo 3000 HeatBoiler
 U.L. Approved Yes No Apricus AP20 Solar Thermal

Will appliance be installed in accordance with the manufacture's installation instructions? Yes No

IF NO Explain: _____

The Type of License of Installer:

- Master Plumber # _____
- Solid Fuel # MS 3000 8870
- Oil # _____
- Gas # _____
- Other _____

Type of Chimney:

- Masonry Lined
Factory built _____
- Metal
Factory Built U.L. Listing # UL-103
- Direct Vent
Type _____ UL# _____

Type of Fuel Tank

- Oil
- Gas N/A

Size of Tank N/A

Number of Tanks N/A

Distance from Tank to Center of Flame N/A feet.

Cost of Work: \$ 8,000

Permit Fee: \$ 100

Approved

Fire: _____
 Ele.: _____
 Bldg.: _____

Signature of Installer [Signature]

Approved with Conditions

- See attached letter or requirement

[Signature]
 Inspector's Signature

2/4/09
 Date Approved

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Permit No: 09-0150	Date Applied For: 02/24/2009	CBL: 425 I004001
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Location of Construction: 142 PRESUMPCOT ST	Owner Name: 142 PRESUMPCOT LIMITED LI	Owner Address: 142 PRESUMPCOT ST	Phone:
Business Name:	Contractor Name: Revision Energy LLC	Contractor Address: 109 Fox Street Portland	Phone (207) 221-6342
Lessee/Buyer's Name	Phone:	Permit Type: HVAC	

Proposed Use: Commercial - Office, light manufacturing & warehouse -Install wood boiler and Solar Hot water w/ 2 roof panels	Proposed Project Description: Install wood boiler and Solar Hot water w/ 2 roof panels - Froling Turbo 3000 Woodboiler & apricus AP20 Solar Thermal collectors
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Dept: Zoning **Status:** Approved with Conditions **Reviewer:** Ann Machado **Approval Date:** 02/25/2009

Note: **Ok to Issue:**

- 1) This permit is being approved on the basis of plans submitted. Any deviations shall require a separate approval before starting that work.

Dept: Building **Status:** Approved with Conditions **Reviewer:** Chris Hanson **Approval Date:** 03/04/2009

Note: called for spec's of wood boiler CSH 03/02/2009 **Ok to Issue:**

- 1) Separate permits are required for any electrical, plumbing, HVAC or exhaust systems. Separate plans may need to be submitted for approval as a part of this process.
- 2) Installation shall comply with 2003 International Mechanical Code and State of Maine Oil and Solid Fuel Board Laws and Rules

Dept: Fire **Status:** Approved with Conditions **Reviewer:** Capt Keith Gautreau **Approval Date:** 02/27/2009

Note: **Ok to Issue:**

- 1) Install shall comply with all manufacture's specifications.



DESIGN, INSTALLATION AND SERVICE OF RENEWABLE AND EFFICIENT ENERGY SYSTEMS

February 24, 2009

Fortunat Mueller
ReVision Energy
109 Fox street
Portland, ME 04101

RE: ReVision Energy Solar Installation
Address: 142 Presumpscott St, Portland, Maine

To Whom it May Concern:

I have reviewed the condition of the existing roof structure at the project site, and the installation method described in the attachment and find them to be sufficient and in accordance with applicable codes and standards.

Respectfully,

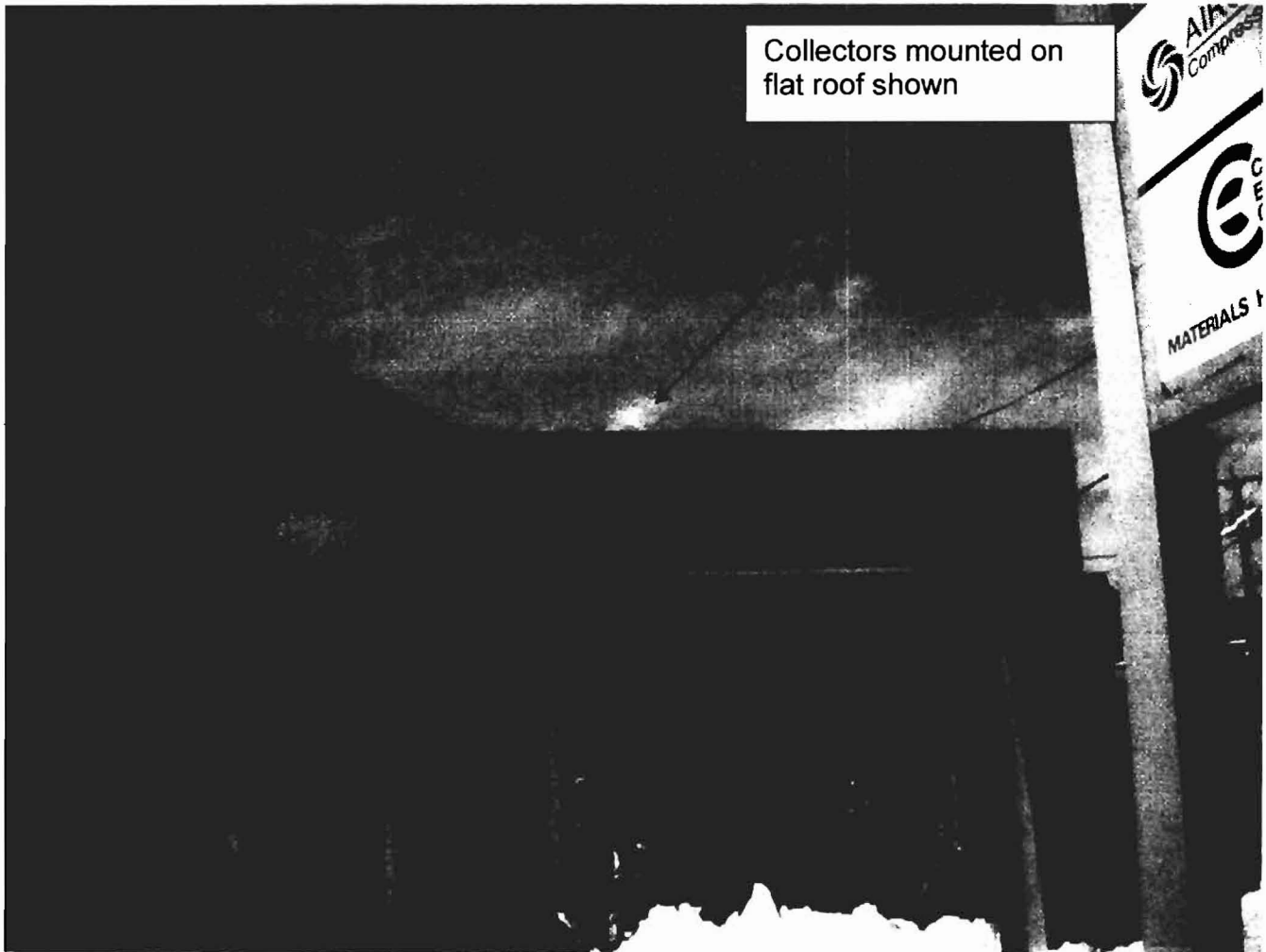
Fortunat Mueller
Maine PE # 11246



Professional design, installation and service of renewable energy systems

ReVision Energy Presumpscott Street solar collector installation:

Collector Placement; on North East corner of building



Tank: One Stiebel Eltron SBB 400
Collectors: 2 Apricus AP 20's

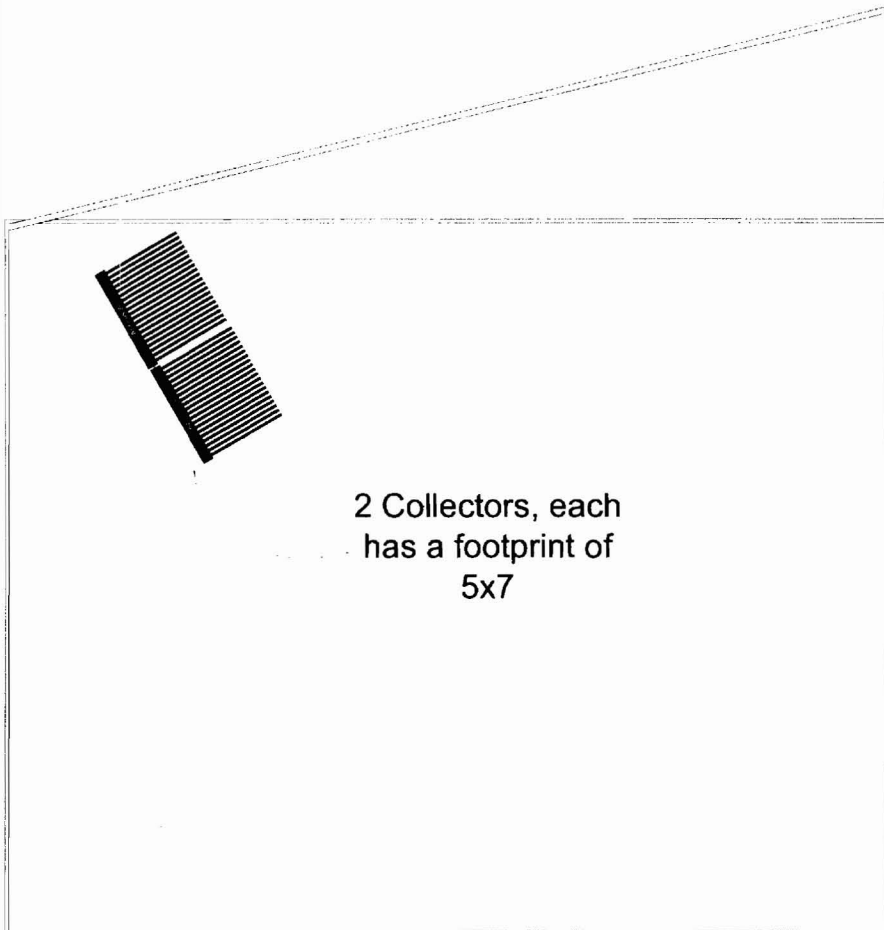
Mounting System; Mounted on High angle lift kit (see attached for dimensional information).
Collector weight: **145 lbs each**
Collector foot print: 31 sq ft
Resultant roof load : **4.64 psf**

142 Presumpscot Street
Portland, ME 04103
207-221-6342

www.revisionenergy.com

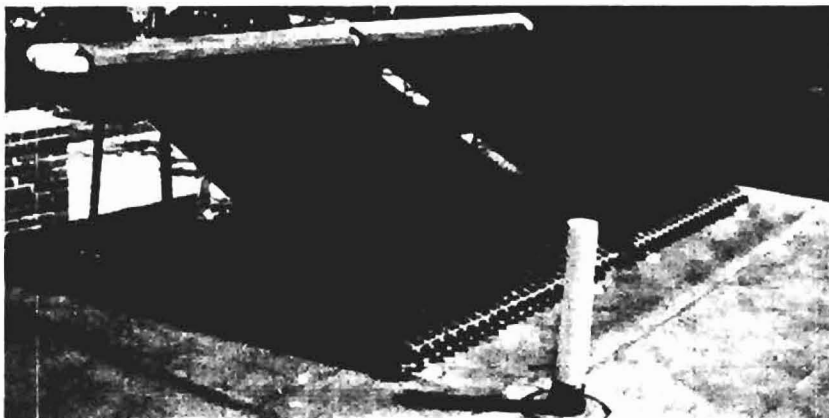
91 West Main Street
Liberty, ME 04949
207-589-4171

Professional design, installation and service of renewable energy systems
Presumpscot St



Old, lower portion of building shown

2 Collectors, each
has a footprint of
5x7



At left is a 44-tube rack mounted collector array installed by ReVision Energy on a flat roof in Brunswick.

We are proposing a similar installation, though at a slightly steeper installation angle.

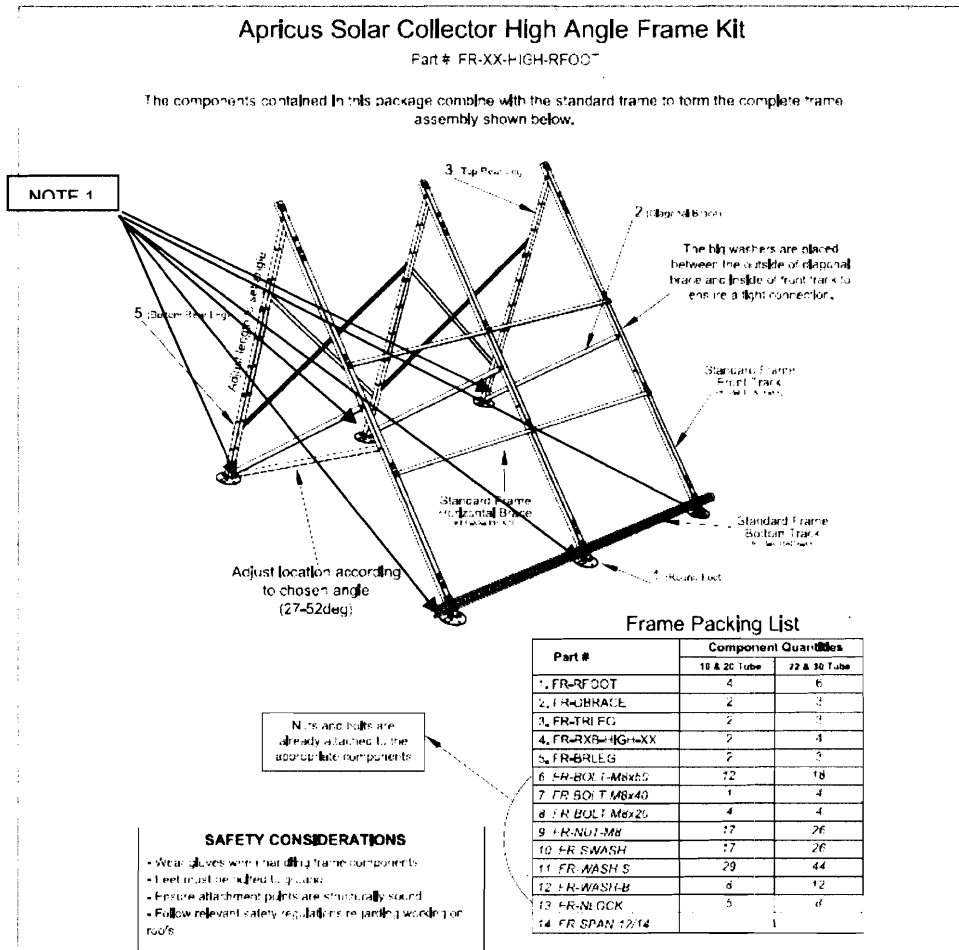
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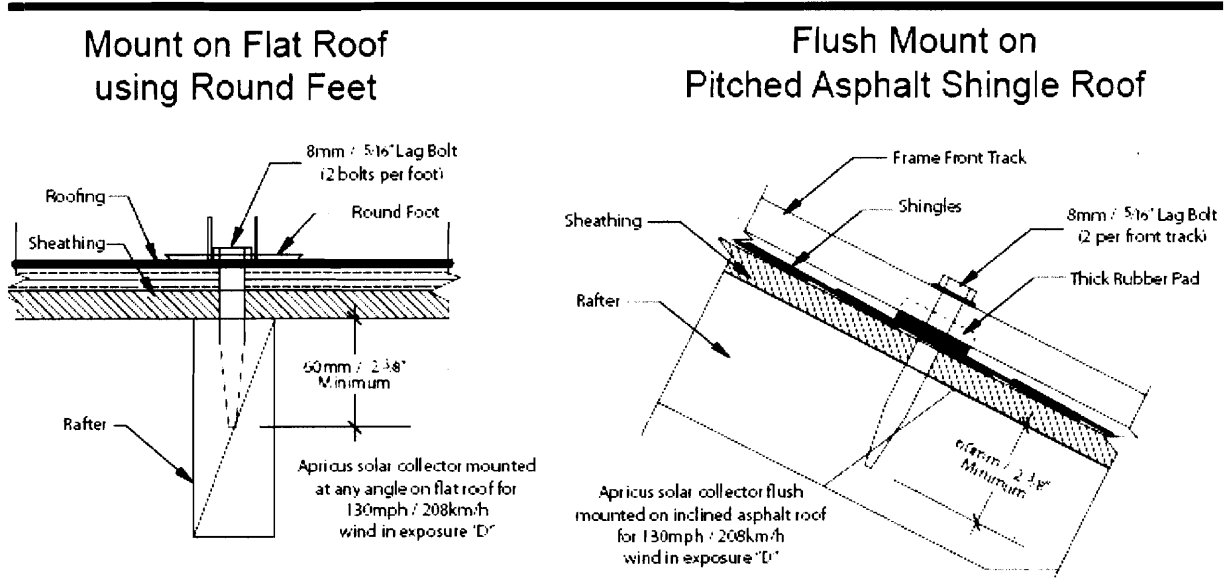
Apricus structural mounting detail:



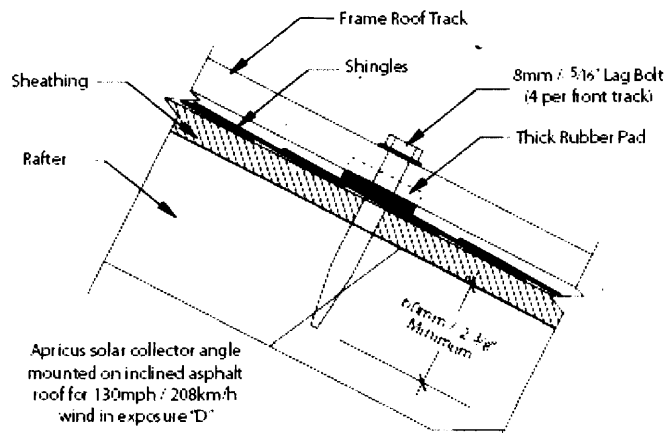
- Notes:**
1. Fasten to roof framing using (12) 5/16" stainless steel Lag Bolt.
 - 1a. If roof is metal deck without wood framing below, use self tapping screw with minimum 150 pound pull out strength per fastener.
 2. Drill pilot hole for lag bolt 60-75% of lag shank diameter.
 3. Seal all penetrations using manufacturer supplied Rubber pad and Geocell 2300 tripolymer sealant or equivalent



Lag bolt details:



Angle Mount on Pitched Asphalt Shingle Roof

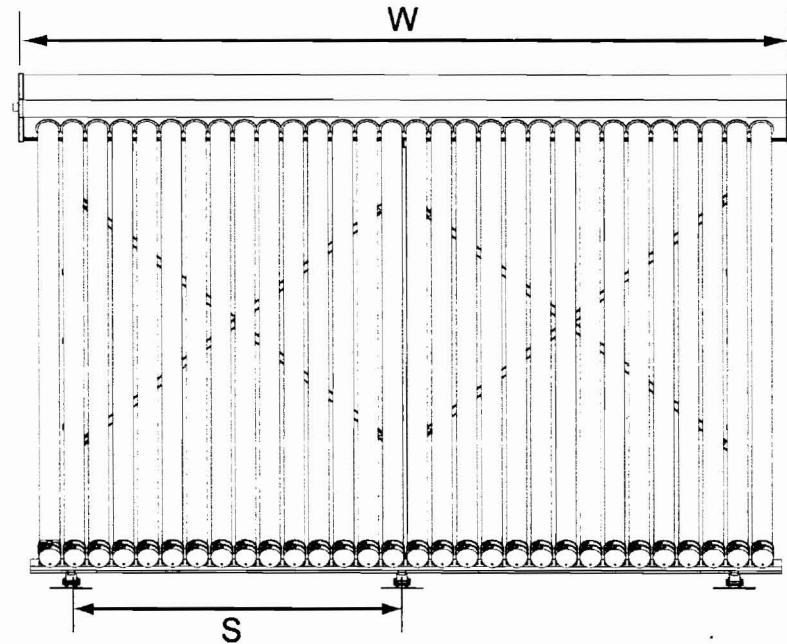
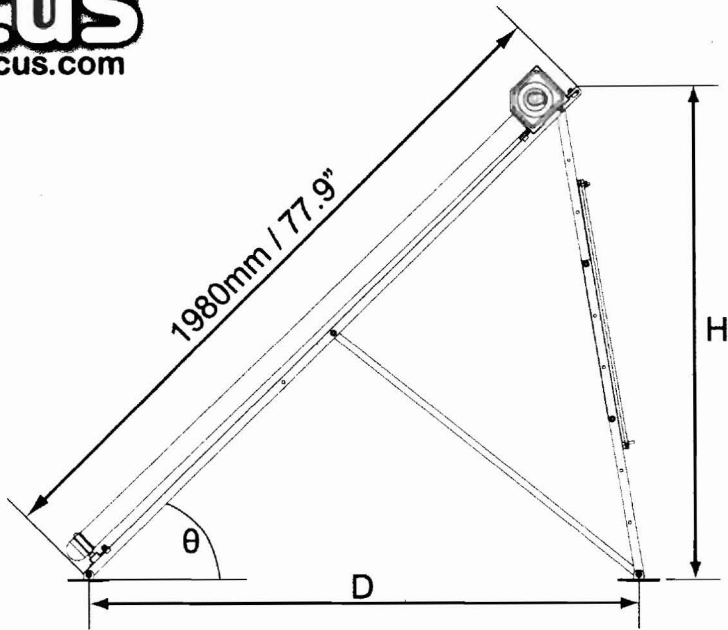


Notes:

1. Lag Bolt and washer should be stainless steel
2. Drill pilot hole for lag bolt 60-75% of lag shank diameter.
3. Seal all penetrations using manufacturer supplied Rubber pad and Geocell 2300 tripolymer sealant or equivalent



Apricus Solar Collector Gross Dimensions



Angle	Type	D	H
52°	High Angle (Round Foot)	1406mm / 55.4"	1539mm / 60.6"
45°		1565mm / 61.6"	1389mm / 54.7"
38°		1688mm / 66.5"	1231mm / 48.5"
33°		1792mm / 70.6"	1074mm / 42.3"
46°	High Angle (Roof Track)	1900mm / 74.8"	1436mm / 56.5"
42°		1900mm / 74.8"	1315mm / 51.8"
37°		1900mm / 74.8"	1186mm / 46.7"
33°		1900mm / 74.8"	1051mm / 41.4"
27°	Mid Angle (Round Feet) *	Variable	~ 911mm / 35.9"
27°	Mid Angle (Roof Track)	1900mm / 74.8"	911mm / 35.9"
13°	Low Angle (Round Feet) *	Variable	~ 447mm / 17.6"
13°	Low Angle (Roof Track)	1900mm / 74.8"	447mm / 17.6"

Size	S	W
10 tubes*	490mm / 19.29"	796mm / 31.3"
20 tubes*	1190mm / 46.85"	1496mm / 58.8"
22 tubes	665mm / 26.18"	1636mm / 64.4"
30 tubes	945mm / 37.2"	2196mm / 86.4"

* 10 & 20 tube collectors only have 2 sets of legs

Notes:

1. The frame should be aligned with the roof rafters where possible.
2. The front tracks can be adjusted left and right slightly to match roof structure
3. When possible position the front tracks behind tubes so they are hidden
4. Always refer the the installation manual regarding mounting guidelines, in particular regarding mounting strength and wind loading issues.
5. Seek engineer approval for non standard installations, or if at all in doubt of mounting strength or safety.

* Low and Mid angle frame kits do not have a diagonal brace. When using round feet the rear legs can be freely positioned, and therefore the angle and height are slightly variable.