



DATASHEET

Solar Collector

The Imagination Solar collector is designed to be extremely durable, efficient & maintenance free.

Durable one piece moulded polycarbonate cover - virtually unbreakable & vandal proof.

The 'Krosol' selective absorber surface has an extremely high performance, absorbing 96% of energy received and emitting only 8% of energy (in a similar way to Pilkington 'low E' double glazing). This compares favourably with many competitors whose equivalent figures are 94% absorption & 16% emission.

Insulated to a high standard with 25mm of mineral fibre insulation ($k=0.04$) and 25mm Celotex PIR foam insulation ($k=0.023$).

Anti-UV coating prevents deterioration & discolouration of the cover, build up of lichen and enables the rain to clean the collector.

Certified & independently tested to BS EN 12975,

including tests for high pressure, high & low temperatures, heavy rain, and high winds.

Designed for roof integration. It is also suitable for over roof mounting, and can be fitted to flat roofs & walls

Moulded flashing to sides and top. Lead required for bottom flashing.

Unit 4 Montpellier Central, Station Road
Bristol BS6 5EE

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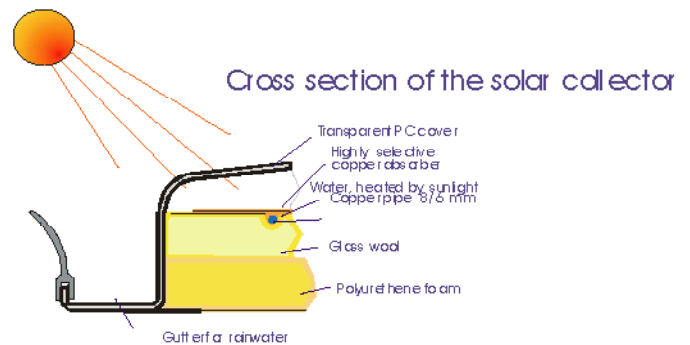
e: enquiries@imaginationssolar.com

Reg. in England 4226842

version ds_collectors_2.1



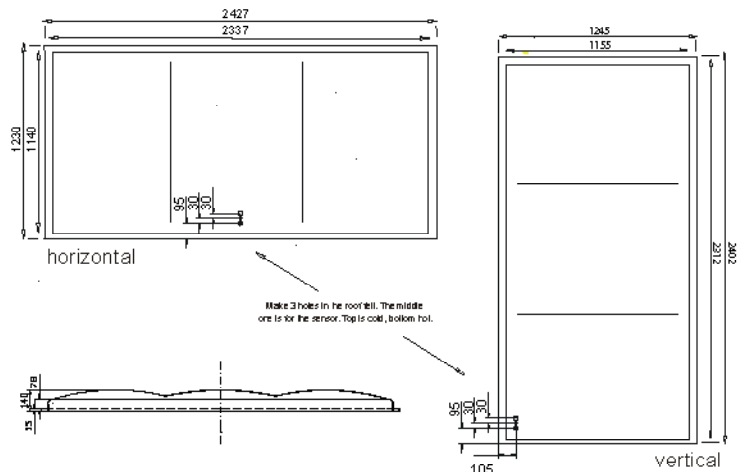
New Collector Design from Oct 2006



Collector Specification:

Area: 2.7m ²	Weight: 25kg
Absorption: 96%	Emission: 8%
Cover: polycarbonate	Light transmission: 90%
Water content: 0.7 litre	Insulation: 50mm
Absorber material: Copper	Selective layer: chromium oxide

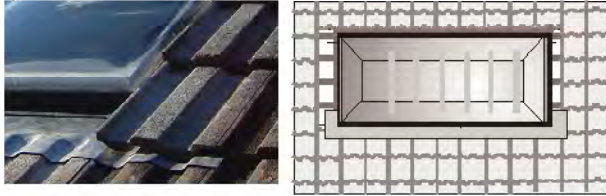
Available in vertical or horizontal orientation



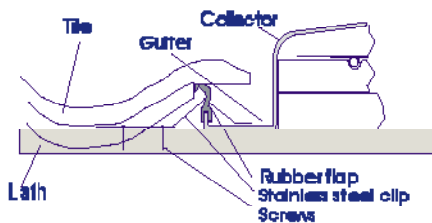
As Celotex is almost twice as effective our insulation is equivalent to 68mm of mineral fibre alone. This compares favourably with many competitors who often use 40mm of insulation.

www.imaginationssolar.com

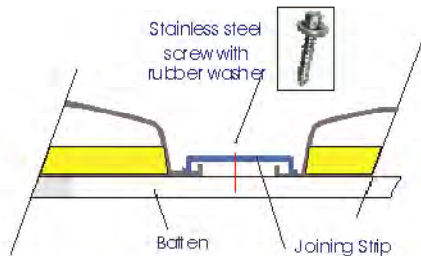
Fixing solar collectors on sloping roofs



- The tiles are removed & a lead flashing is fixed at the base
- The collector includes gutters at the top & sides for runoff
- The solar collector is designed to fit exact multiples of most modern interlocking tiles.
- It can be used with staggered tiles or slate roofs. This requires some tile cutting and the use of half tiles



Two or more collectors can be laid side by side with a 40mm wide joining strip.



- Collectors can also be roof mounted using an overroof mounting frame fixed on top of the tiles or slates. The frame is secured using stainless steel bolts.
- Roof mounted collectors eliminate the necessity to remove tiles for installation.



Fixing solar collectors on flat roofs

1. Without ballast



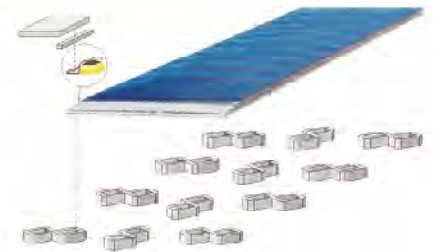
- Collectors are assembled in a frame to the roof structure
- A design such as this can be used for large scale systems

2. With ballast

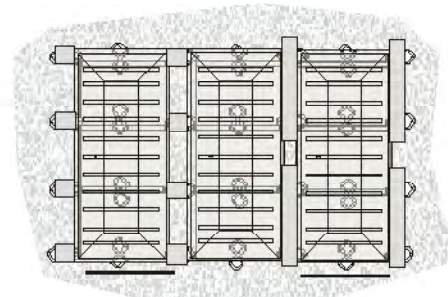


- Collectors can be mounted on flat roofs using a consoleframe which pitches the collector at 30degrees, the optimal angle to gain maximum solar energy.
- Ballast is not provided, but can consist of concrete blocks or slabs.

3. Zero gradient mounting



- The collectors are laid on plastic spacers with the whole system being fixed using ballast.
- In this system water would remain in the collector whilst the pump was off, so would require anti-freeze.



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