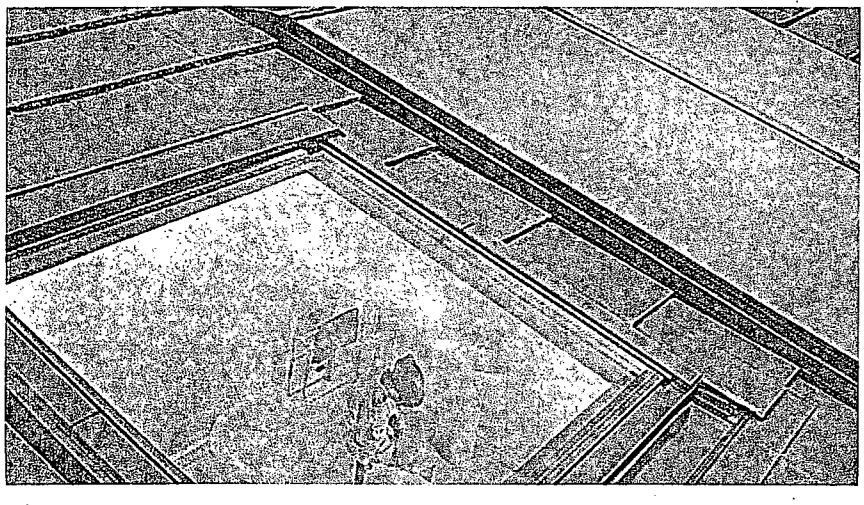
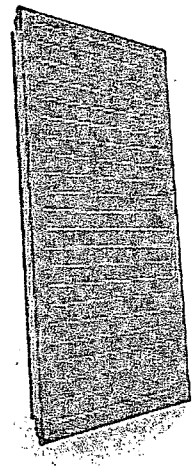
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Dedicated to heating comfort

WORCESTER
Bosch Group

Greenskies FKT-1S solar panel





Description

The Greenskies FKT-1S solar panels are our high performance solar panels. They are designed to fit on the roof lengthways, also known as 'portrait'.

When having solar panels installed, your existing cylinder is exchanged for a solar compatible one with two heat exchanger coils: one from your boiler and a second from the solar panels.

A simple control (the TDS10) is used with Greenskies solar water heating. This control allows you to monitor the solar panel system and to select the temperature required at the hot water cylinder.

Planning permission and grants for solar panels

Planning permission for installing solar panels was eased significantly in 2008 and grants are available through the Low Carbon Buildings Programme. See our page on funding for renewable technologies for more information.

Efficiency

Emissions 5±2%	The Greenskies FKT-1S solar panel has an emissions rating of 5±2%. Emissions are the energy reflected back into the atmosphere by the solar collectors.

- Solar panels contain solar safety glass
- Robust solar panel design
- Solar panels are easy to fit
- Solar Keymark approved (European quality mark)

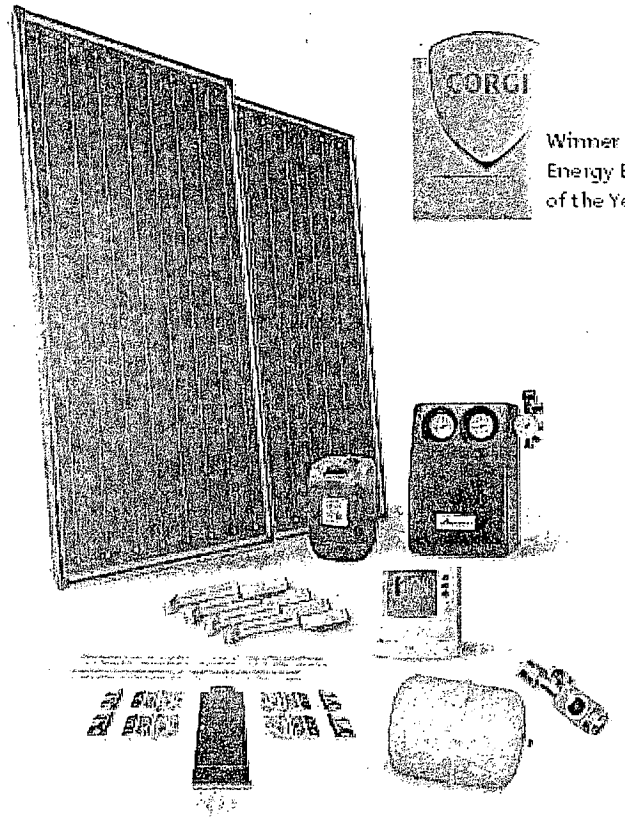
Technical data table

Technical data

Title	Value
Fluid for solar circuit	Water-propylene glycol mixture 50/50
Orientation	Portrait
Aperture area (m^2)	2.25
Absorber area (m^2)	2.23
Solar glass transmission (%)	91.5
Coating	Highly selective (PVD)
Absorption	95% ± 2%
Emission	5% ± 2%
Max. operation pressure (bar)	10
Nominal flow rate (litres/hr)	50
Glass	3.2mm solar safety glass, 91.5% ± 0.5% solar transmission
Frame	UV and weatherproof fibre glass profile with plastic corner
Rear panel	0.6mm aluminium-zinc coated steel sheet
Absorber	Copper strip absorber with double meander hydraulic, ultrasonic welded
Certificates	CE Solar Keymark
Zero-loss collector efficiency	80.3
Heat loss coefficient	3.56
Gross collector area (m^2)	2.37
Insulation	55mm mineral wool, high temperature resistant
Height (mm)	2,070mm
Width (mm)	1,145mm
Depth (mm)	90mm
Weight	44kg (when empty)
Fluid content	1.43ltr
Stagnation temperature	202°C

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Solar Panels



CORGI

Winner of:
Energy Efficient Product
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Solar Hot Water

Harnessing natural energ

for hot water comfort

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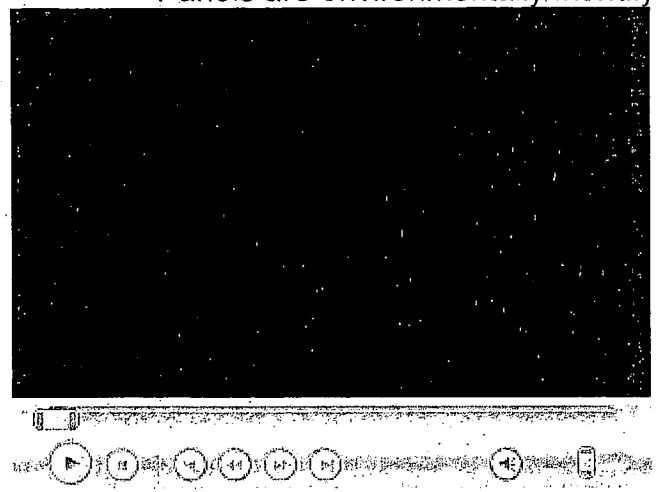
Solar Hot Water Systems

If you're interested in helping to save the environment or saving money on your energy bills then our solar water heating systems could answer for you.

Our Solar Thermal Hot Water systems can supply you with 50-70%[1] of your hot water, and as solar energy is a sustainable energy sou can save money while caring for the environment.

- Captures free solar energy and uses it to heat domestic hot water.
- Efficient collector with 95% absorption rate increases panel performance.
- Selective coating on the collector allows the panel to absorb energy from the sun even on cloudy days.

- A simple controller allows quick setting of functions and features a graphical display to provide more information.
- Strong solar glass cover protects the collector from damage.
- Flat, one piece design makes panel more robust than other solar panel types.
- Panels are environmentally friendly and do not produce any direct emissions. All materials are recyclable

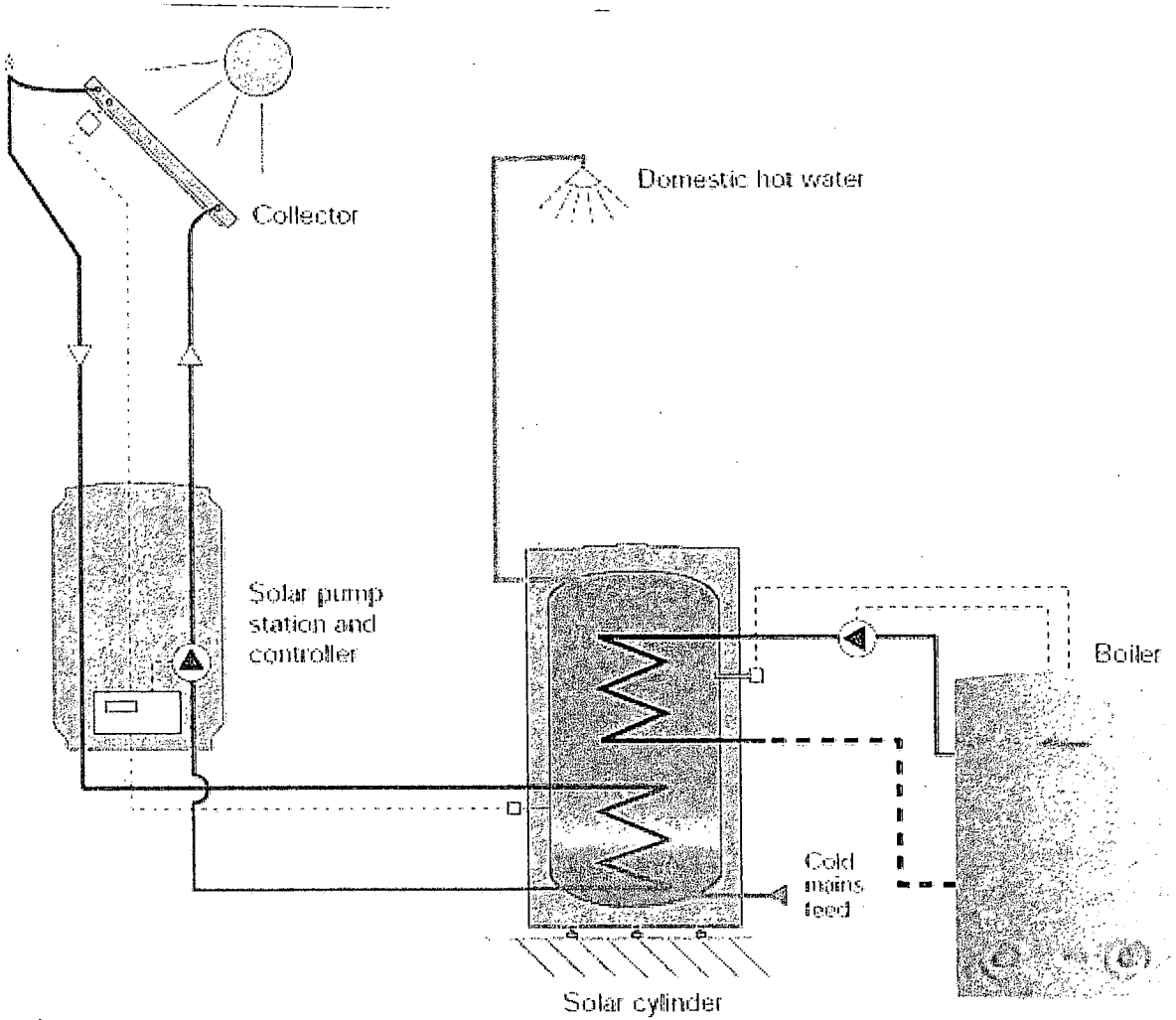


Click here full screen version

System Layout

The most common solar system layout uses a twin coil cylinder which is fed by both a boiler (or other heat source) and the solar panels. Th
system and the regular heating system do not come into direct contact with each other and the only shared part is the cylinder.
The solar system has its own pump, expansion vessel, pressure relief valve, air vent and controller

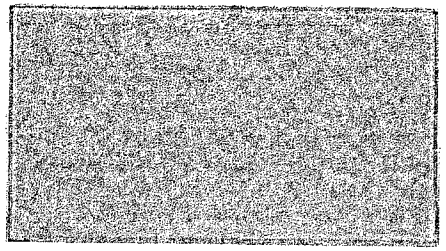
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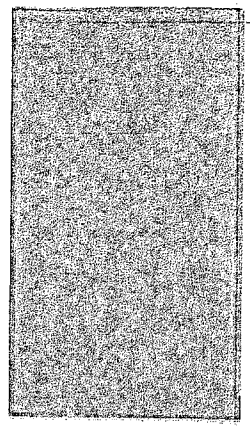


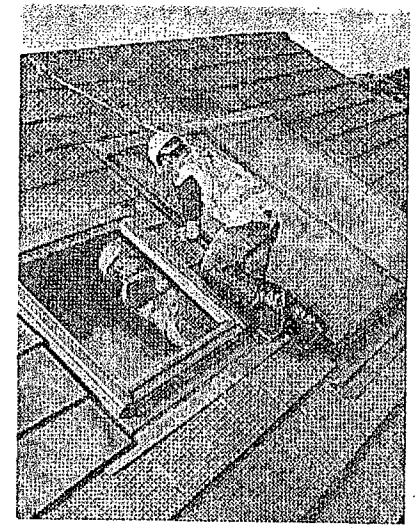
System Options

Depending upon the style of roof on your property we offer panels in two different orientations and two different installation methods:

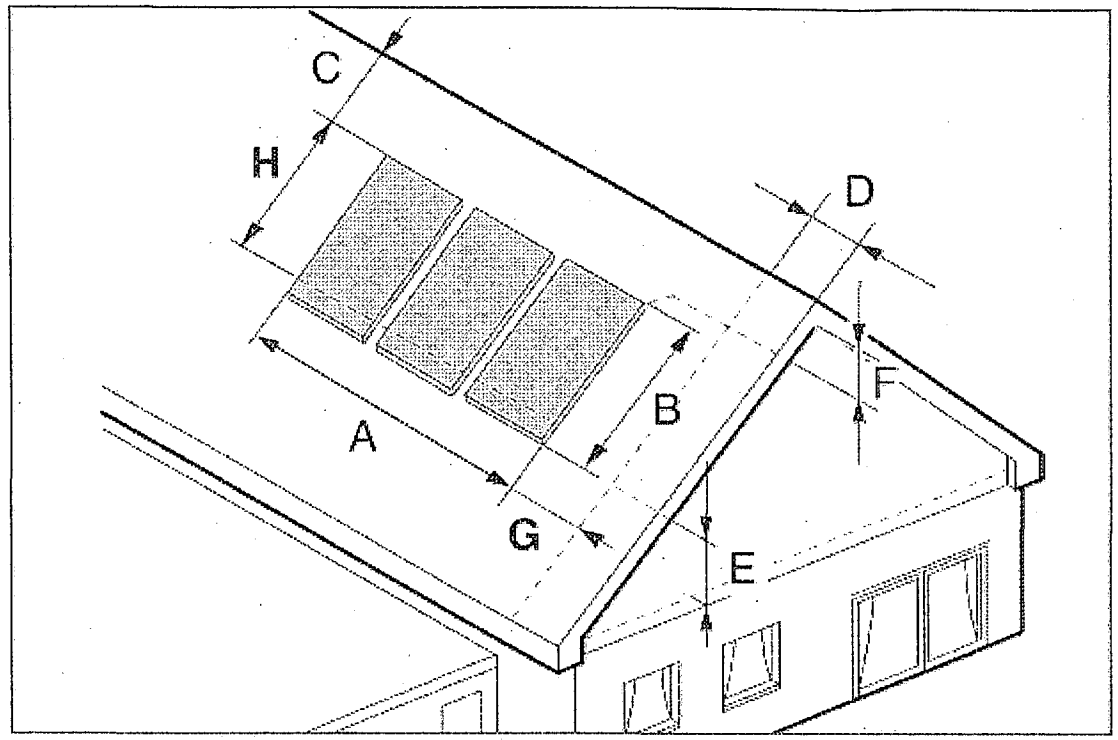
'Landscape' Panels **'Portrait' Panels** **'On Roof' Installations** **'In Roof' Installations**







Installation



Space required for collector array

Space required for portrait installed col (including facing panels all around		
No. of collectors	Dimension A (m)	Dimer
2	2.32	
3	3.49	
4	4.66	
5	5.83	
6	7.06	
7	8.17	
8	9.34	
9	10.51	

Space required for landscape installed co (including facing panels all around		
No. of collectors	Dimension A (m)	Dimer
2	4.17	
3	6.26	
4	8.36	
5	10.45	
6	12.55	
7	14.64	
8	16.74	
9	18.61	

Dimension A and B
Area required for the collector array.
Dimension C
At least two tiles to the roof or chimney. Otherwise there is a risk of damaging the tiles, particularly if the tiles are laid in mortar.
Dimension D
Roof overhang including gable wall thickness.
Dimension E
Minimum 30cm for fitting the connection cables in the attic.
Dimension F
Minimum 40cm for installing the connection cables in the attic (if installing a vent, sufficient space must also be allowed for in the vicinity of the flow outlet).
Please note that the air vent must be the highest point of the system.
Dimension G
Minimum 50cm left and right of the collector array for the connection cables under the roof.

Dimension H
Dimension H is 1,900mm (1,000mm for landscape collectors) and is the minimum distance from the upper edge of the collector to the lower profile rail, which is installe

Documents & Literature

Technical Specification