

Solar heating is the natural way to reduce your energy bills and your carbon footprint. It doesn't have to cost the earth.

Solar Energy for a Brighter Future

Solar energy is free, clean and safe. It produces no carbon emissions, one of the major contributors to global warming. Using solar energy enables you to reduce your carbon footprint as well as your energy bills. Tax credit and grants are available through many Government initiatives.

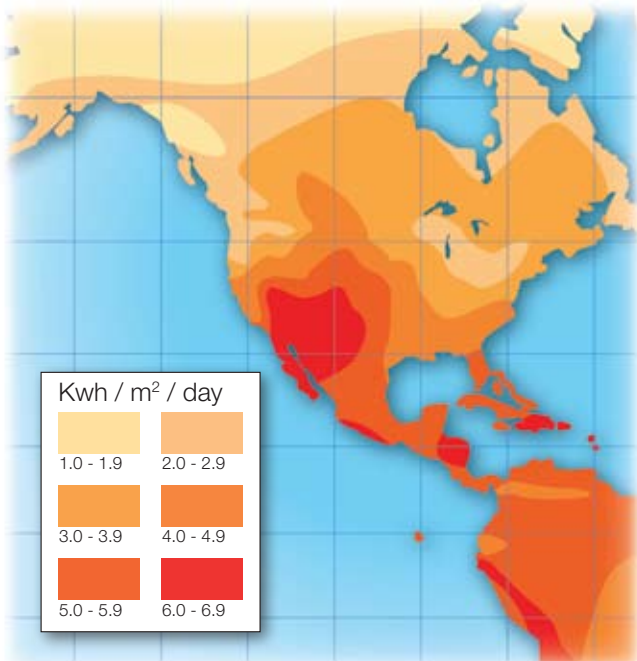
Solar thermal technology is a perfect investment in today's economic and financial climate. Reliance on traditional fossil fuels is no longer a viable option. Limited resources,

fluctuating prices along with the impact on today's environment means a shift towards renewable technology is inevitable and key to survival.

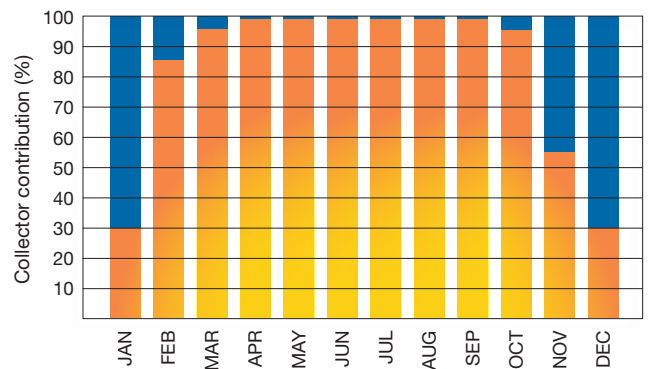
The sun radiates enormous amounts of energy to the earth. In North America, the value of solar radiation received varies according to location. From the coastal regions to the mountains and the southern plains, our systems collect up to 80% of the available solar energy.

Solar Energy Contribution

The table below shows the typical annual percentage of hot water achieved using 34.3ft² / 3m² solar collectors, based in a coastal climate.



Amount of solar energy received in peak sun hours each day on an optimally tilted surface during the worst month of the year



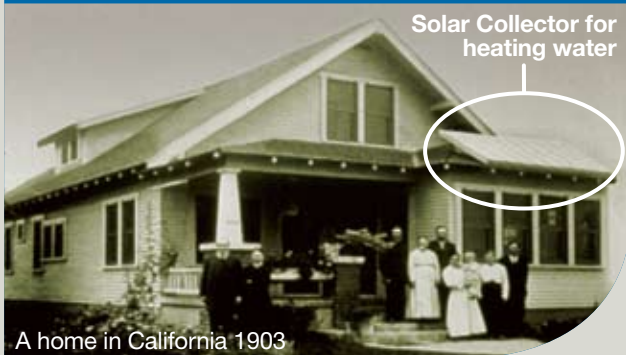
Domestic Hot Water Demand Solar Hot Water Contribution

Every month the earth receives, free of charge, more solar energy than man has consumed throughout history.

History of Solar Energy Collectors

Solar Energy is not a new phenomenon, working models can be dated back to the 1760s to a Swiss Engineer: Horace de Saussure. Since then collector designs have changed numerous times to arrive at today's very efficient flat plate or evacuated tube collectors.

In 1891, Baltimore entrepreneur Clarence Kemp became the first man to patent a solar thermal system. Kemp successfully marketed his invention to homes up and down the east coast of America. By 1897, a third of the homes in Pasadena, California had water heated by the sun.



Existing Projects

At Kingspan our pioneering solar thermal vacuum tube technology has become part of the nation's fabric. Indeed our evolutionary solar vacuum tubes form an integral part of many of America's greatest institutions including: The Pentagon, NASA, Kennedy Space Centre, University of South Carolina, National Zoo Washington DC, Ikea Utah and North Carolina, Johnson and Johnson Pennsylvania and Mid Atlantic Social Security Administration.



Thermomax collectors are certified under the Solar Rating and Certification Corporation (SRCC) based in Florida, USA.

Quality Product:

- Solar Keymark approved (2003)
- International Forum Design Award for Excellence in Product Design 2005
- ISO9001:2008
- EN12975 hail impact test

National Network of Dealers

Our world leading, high performance products are available through a national network of recognized dealers. These Centres of Excellence complete with full display areas, technical resources and fully trained installers provide a one-stop shop for all your solar requirements.

Please contact Kingspan Solar Inc. for details of your nearest dealer.



Kingspan Solar Inc.

7510 Montevideo Road, Jessup, MD 20794

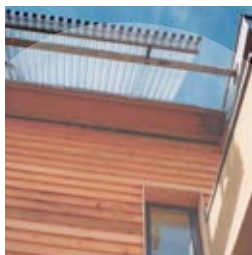
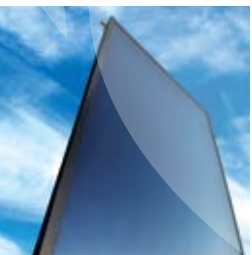
phone: (410) 799 6600 fax: (410) 799 4207

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Premier Solar Products from the World Leaders



Kingspan Group plc - Global, Sustainable, Building Product Solutions

Kingspan Group plc is a building products business focused on establishing leading market positions by providing energy conserving and renewable construction systems with a global reach. Kingspan have manufacturing and distribution operations throughout the world and is recognized throughout the construction industry for its commitment to innovation, design, quality and technical expertise.

Across a wide range of sectors within the industry, Kingspan's integrated approach to the energy efficiency of buildings has made it first choice in delivering the specialist needs of architects, specifiers, developers and building owners.

Kingspan Solar Inc. is a division of the Kingspan Group plc. Together with other Kingspan Group companies, the Solar business has an overall goal to provide solutions towards a zero carbon lifestyle.

Over 25 years ago, we devoted ourselves to perfecting solar thermal vacuum tube technology that would generate hot water even on cold, wet and cloudy days. **We succeeded.**

Kingspan Solar Inc.

Kingspan Solar is committed to providing world-leading, efficient and cost effective solutions to satisfy today's environmental concerns. Investment in manufacturing technology, research and design and infrastructure is the key to Kingspan's success. With over 25 years' experience in design, specifications and installation of solar thermal technology, Kingspan Solar prides itself on leading the way with premium quality products including our award-winning Thermomax solar vacuum tubes. We can offer professional system design specifications and provide technical assistance for both domestic and commercial applications.

Working with you

All commercial and domestic installations will be different, which is why Kingspan Solar offer a FREE custom design service.

This includes:

- Assistance with the design of your project, producing solar simulation and full project based AutoCad schematics.
- Recommendation of an accredited dealer for the project through our network of master dealers.



University of South Carolina

Thermomax - Premium Quality

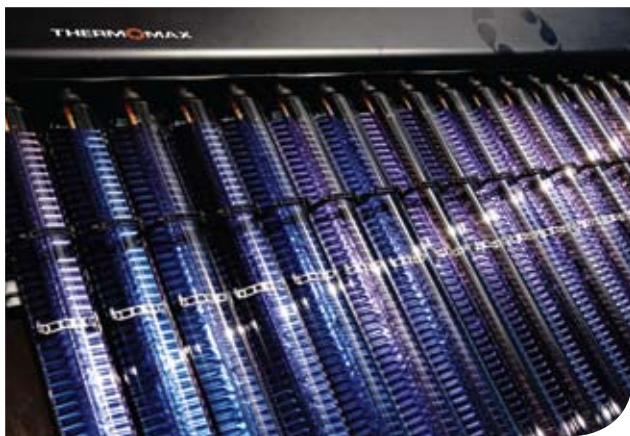
At Kingspan Solar, we only use the highest quality European glass. Quality of our product is paramount to our success and we take pride in the fact our product can operate within a variety of severe weather conditions, including hail. The tubes have been independently tested to and certified to withstand the impact testing according to DIN EN12975-2:2006 using ice-balls. This test fires 1" (7.6 g) ice-balls at 51.mph a total of 10 times at the collector. Internally, we also test every batch of glass delivered to our factory to ensure that it continues to meet the requirements of the EN12975 impact standard.

THERMOMAX

Solar Thermal Vacuum Tube Systems

Solar thermal technology transforms direct and diffuse solar radiation into useful heat using a solar collector. Each Thermomax collector consists of a highly insulated water manifold and a row of tubes. The vacuum inside each tube provides perfect insulation and therefore, protects the system from outside influences, such as cold and windy weather or high humidity. This vacuum insulation also ensures that the energy collected from the sun is very efficiently and effectively transferred into usable heat as there is minimal heat loss.

Thermomax are the original and still the best all-round, highest performing vacuum tube collectors in the world



Why Thermomax?

Thermomax vacuum solar tubes are acknowledged as the most efficient method of generating solar hot water whatever the weather - designed specifically for North American climates. In addition to domestic hot water, the superior performance of a Thermomax vacuum tube collector can also provide central heating support for standard or under floor heating, specialized industrial hot water heating for high temperature applications and solar cooling.

Performance and Savings

Thermomax products have been designed specifically to contribute heat even in cold, windy or humid conditions

Supplies up to 70% of your annual hot water needs - reducing dependence on increasingly expensive fossil fuels

Works from dawn until dusk and throughout the year with rapid conductivity and transfer of energy into heat

30% more effective than flat plate collectors

Average 25-year lifespan

10 year warranty when installed by Kingspan Solar Accredited Dealer

High efficiency heat contribution able to provide additional heat for radiant space heating systems

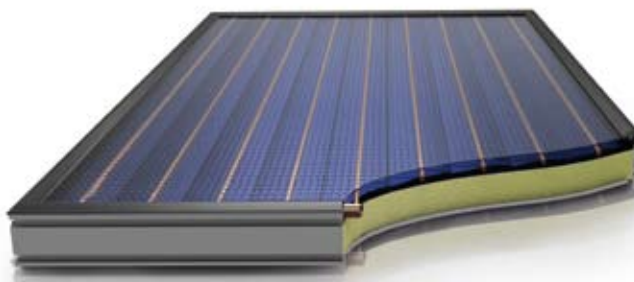
SRCC and Solar Keymark approved

THERMOMAX FS

Highly Efficient flat Panel Solar Technology

Thermomax FS flat panel high performance solar collectors are designed specifically for hotter North American climates. They are ideal for domestic use and have a ten year warranty when installed by a Kingspan Solar Accredited Dealer.

With an optimized aperture area the Thermomax FS offers high efficiency and elegant design, as well as simple and flexible installation. Taking into account social and economic demands, the Thermomax FS provides the perfect environmentally-friendly solution to your hot water demands.



Providing flexibility in installation, these panels can be either 'in-roof' or 'on-roof' depending on your requirements.

Robust and hard-wearing these panels are tested to BS 12975 hail test and guaranteed under these extreme conditions.

Quality Performance

Designed specifically for hotter climates

Ideal for domestic use

10 year warranty with certified installation

Undergone stringent thermal shock and tensile tests to guarantee highest quality

Tested to ISO 12975 for performance and durability

Tested to BS 12975 hail test

SRCC and Solar Keymark approved

Kingspan Climate*

The Complete Solar Powered Cooling System

This silent state-of-the-art solar powered cooling/heating system is perfect for hot climates. The Kingspan Climate system is a complete package that includes world leading Thermomax solar vacuum tube collectors, a Kingspan tank, controllers and the unique ClimateWell system that uses patented triple state absorption technology.

Heat collected by Thermomax vacuum tube collectors is used to power the ClimateWell unit which cools the building. In addition to this the system can also be used to provide underfloor and space heating as well as heating for domestic hot water and swimming pools. Adaptable and versatile – this unique system is ideally suited to the needs of a diverse range of projects ranging from domestic installations to schools and hospitals.

Architectural integrity

The Kingspan Climate system complements the aspirations of the architect by allowing freedom of positioning. Externally, solar collectors can be fixed at any angle (horizontally, vertically or anywhere between) and can even be integrated into the architecture.

Internally, the use of an underfloor distribution system or ducted convection systems negates the need for wall mounted radiators leaving the internal space free and uncluttered.

Benefits

Compact and silent unit

Triple state absorption technology produces clean energy to generate solar cooling day and night

Extremely low running costs – up to 90% saving of the energy costs associated with traditional air conditioning systems

Full warranty applies for ClimateWell, Thermomax and the tank when installed by a Kingspan Solar Accredited Dealer

Buildings with a Kingspan Climate system can easily achieve an A-rating allowing for a higher re-sale value



Kingspan Tribune

Premium Quality Stainless Steel Tanks

Kingspan Tribune from the Kingspan Solar range, provides high performance hot water storage solutions. For over 80 years, the Tribune name has been synonymous with quality. The Kingspan Solar brand embodies all the hallmarks of manufacturing excellence and product innovation. All Kingspan factories work to, and are accredited to, BS EN ISO 9001:2000. Exhaustive research and development has culminated in the new Kingspan Tribune Duplex stainless steel unvented tanks. Kingspan Tribune aims to set new benchmarks for quality, performance and endurance.

Kingspan Tribune is resistant to all forms of corrosion including: crevice, pitting, uniform and stress cracking. Tribune's superior corrosion performance is achieved without an anode and its associated maintenance worries. Duplex stainless steel has a superior strength-to-weight ratio compared to glass-lined steel. Duplex stainless steel is extremely environmentally friendly, as a material it is 100% recyclable. The Kingspan Tribune typically weighs less than half that of an equivalent glass-lined steel unit.



Environmentally Friendly Insulation

As you would expect, the Kingspan Tribune is very well insulated. A class leading 2" / 50mm thick insulation layer surrounds the cylinder. Coupled with the close-fitting case, Tribune's heat loss is low. The insulation is CFC-Free, HCFC Free and contains no ozone depleting chemicals with an ODP of Zero and GWP of One.

Benefits

Quality Performance from Kingspan Tribune

Available in both 80 gallons and 119 gallons

Duplex stainless steel for ultimate peace of mind

10 year warranty

The heat exchangers are of the coil in coil type providing a more efficient transfer of heat

Both units fitted with a secondary return

The lower exchanger is positioned close to the bottom of the tank to reduce the risk of Legionella

Fast reheat and high insulation value resulting in high efficiency