



Underfloor heating is a form of central heating which achieves indoor climate control for thermal comfort using conduction, radiation and convection. Practical, cost-effective and flexible, Underfloor heating is increasingly being specified over traditional radiator systems and establishing a reputation as the preferred modern-day heating solution.

**Comfort** – Even spread of heat provides a high level of comfort.

**Economy** – reduced demand on boilers and no wasted heat at ceiling height saves costs.

**Cost-efficiency** – Reduced on-site maintenance – servicing of boilers and pumps only.

**Flexibility** – Unrestricted wall surfaces in both old and new buildings.

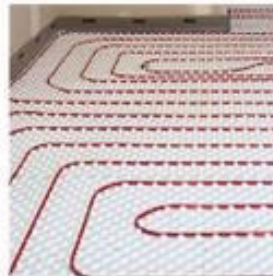
**Safety** – No hazardous wall projections or hot surfaces.



Step 1: Installation of the Edge Insulation Strip



Step 2: Installation of the Insulated Board



Step 3: Installation of the Underfloor Heating Pipes



Step 4: Covering the pipes with Screed



### Beautiful. Flat. Functional.

These low-temperature panel radiators have a favourable radiation/convection ratio, so they create a cosy, homogeneous room climate while also looking good. There is a wide range of models, including radiators to suit all kinds of rooms and any heating demands. EuroProfil Excellent is available ready to connect up with a valve insert.





# DAIKIN

A world Leader in Air Conditioning Technology

## FOR YOUR HOME



Split type air conditioners (single room)



Multi-split type series (multiple rooms)



Air Purifiers



## FOR COMMERCIAL USE & INDUSTRY



SkyAir



Packaged air conditioners



VRV system



# GREE

GREE Electric Appliances, Inc. of Zhuhai, founded in 1991 is one of the largest and specialised air conditioner manufacturer in China and the leader in R & D, manufacture, marketing and service of air conditioners. It is committed to innovative technology, excellent management and healthy development.

Wall Split Unit



Cassette Type Unit



Floor / Ceiling Unit

Ducted Splits



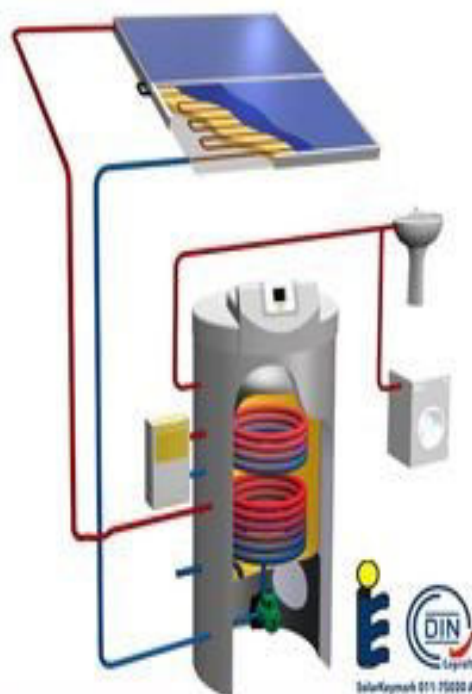
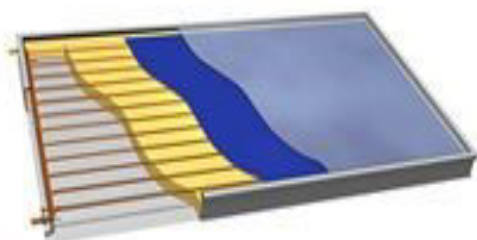




**Wagner & Co**  
SOLARTECHNIK



Top Performance With Anti-Reflection Glass  
and LASER Fused Absorber



## Wagner & Co SOLARTECHNIK

Rising energy prices, climate change or personal conviction - there are many drivers to switch to renewable energies. The classic among them is solar heating. The technology is proven, safe and economical.

### Solar heating pays

Unaffected by rising gas, oil or power prices, solar heating equips your system for the future. More than 30 years of constant development and our own production ensure the high performance and economy of our installations.

### Diverse applications

For collectors, storage cylinders or entire solar systems, we supply from single collector plate to full package including solar cylinder for all your water heating requirements. With our large technical support in Germany, we also specialise in customising and designing large installations.

### Made-to-measure dimensioning - at no extra cost

The main reason why installers choose to work with Wagner Solar is our bespoke system dimensioning service which we offer at no additional cost. Solar thermal systems will remain on your roofs for many years, so it is critical that your system is scoped and installed correctly so it sustains optimum performance whilst withstanding unexpected extreme weather conditions such as heavy snow or wind. Our expert sales team will dimension your system statically, as part of their standard service, whilst offering you the most competitively priced products on the market.

### High performance collector

Our EURO L20 AR high performance collector is fitted with sunarc anti-reflective glass, delivering 6-10% higher solar yields. Manufactured at our fully automated and just-in-time production line in Germany, we have reliable and quick supply.



## LORENTZ Solar Pumps for Swimming Pools

The most efficient application of all renewable energy systems specially in Cyprus is to circulate the Pool Pump only by the power produced from the sun, which means no more electricity costs for the next 15 years or so. The pool pump running costs are between 1000 EU and 1800 EU depending the size of the Pool.

A Lorentz Pool Pump System with 4 to 6 photovoltaic panels runs the pool from Sunup to Sundown every day of the year even without sunshine, circulating more water which means less chemicals, less maintenance and: NO electricity costs anymore.

**LORENTZ** 



### PS600 BADU Top12

Solar-operated Centrifugal Surface Pump



#### Characteristics:

- Flow rate up to 15 m<sup>3</sup>/h
- Maintenance-free thanks to brushless DC motor
- Excellent efficiency



>> [Lorentz PS600 Technical Brochure](#)

### PS1800 CS-37-1

Solar surface pump system



#### Characteristics

- Flow rate up to 36 m<sup>3</sup>/h
- Excellent serviceability
- Maintenance-free DC motor thanks to brushless technology
- Excellent efficiency
- Short Return on Investment (ROI) cycle
- Lower Total Cost of Ownership (TCO)



>> [Lorentz PS1800 Technical Brochure](#)

## LORENTZ Submersible solar pumps

Submersible solar pump, helical rotor and centrifugal type, for flow rates up to 70 m<sup>3</sup>/h and lifts up to 350 m.

### PS Solar Pump Systems

Submersible Pump Systems



#### Application

- Drinking water supply
- Livestock watering
- Pond management
- Irrigation
- etc.

#### Characteristics

- Fast, failure-free installation
- Excellent serviceability
- High reliability and life expectancy
- Short Return of Investment (ROI) cycle
- Lower Total Cost of Ownership (TCO)







For more info visit: [www.recgroup.com](http://www.recgroup.com)

## REC PHOTOVOLTAIC SYSTEMS

Why GO solar?

The sun is a clean, renewable source of energy.

With rising electricity prices, climate change concerns and a growing demand for electricity, renewable energy resources are becoming an increasingly valuable and necessary part of the world's energy mix.

### BENEFITS OF SOLAR

**Good investment:** Buying a solar system makes financial sense with a short payback time and good return on investment in countries that provide feed-in tariff or tax-credits and other incentives.

**Reliable:** Solar modules are easy to install, require little maintenance and come with a 25-year warranty.

**Energy independence:** Electricity is produced where it is consumed.

**Environmentally friendly:** People want to preserve the earth's resources and reduce pollution; buying a solar system contributes to protecting the environment.

Solar is the fastest growing energy source in the world. It's more affordable, more efficient, and more reliable than ever.



For more info visit: [www.degerenergie.de](http://www.degerenergie.de)

## DEGERenergie SOLAR TRACKING SYSTEMS

DEGERenergie is a market leader in solar, sensor-controlled tracking systems. As a future-oriented, internationally active company, they focus on developing their own ideas and implementing them in practical solutions.

**DEGERtraker/TOPtraker®, the complete tracking systems**

01. Experience leads to progression – as we have proven in practice since 1999

02. Maximum additional yields – DEGERtraker up to 45%, TOPtraker up to 30% more than fixed systems

03. Also suitable for desert and equatorial regions

04. Minimal own consumption – well-engineered mechanics make it possible to use cost-effective mini DC motors

05. Short assembly times

06. TÜV tested and certified

07. Robust: Most grueling stress tests of the Stuttgart Materials Testing Institute (MAP)

08. Flexible assembly system – suitable for all standard module and inverter types

09. Minimum maintenance outlay

10. Extremely long life span

11. 99.9% recyclable due to an aluminum and steel construction

12. Impressive value for money and quick amortization





## GEO THERMAL SYSTEMS

Geothermal energy is thermal energy generated and stored in the Earth. Thermal energy is energy that determines the temperature of matter. Earth's geothermal energy originates from the original formation of the planet (20%) and from radioactive decay of minerals (80%). The geothermal gradient, which is the difference in temperature between the core of the planet and its surface, drives a continuous conduction of thermal energy in the form of heat from the core to the surface.

### Types of Geothermal Heat Pump Systems

There are four basic types of ground loop systems. Three of these—horizontal, vertical, and pond/lake—are closed-loop systems. Which one of these is best depends on the climate, soil conditions, available land, and local installation costs at the site. All of these approaches can be used for residential and commercial building applications.

#### Closed-Loop Systems

##### Horizontal

This type of installation is generally most cost-effective for residential installations, particularly for new construction where sufficient land is available. It requires trenches at least four feet deep. The most common layouts either use two pipes, one buried at six feet, and the other at four feet, or two pipes placed side-by-side at five feet in the ground in a two-foot wide trench. The Slinky™ method of looping pipe allows more pipe in a shorter trench, which cuts down on installation costs and makes horizontal installation possible in areas it would not be with conventional horizontal applications.

##### Vertical

Large commercial buildings and schools often use vertical systems because the land area required for horizontal loops would be prohibitive. Vertical loops are also used where the soil is too shallow for trenching, and they minimize the disturbance to existing landscaping. For a vertical system, holes (approximately four inches in diameter) are drilled about 20 feet apart and 100–400 feet deep. Into these holes go two pipes that are connected at the bottom with a U-bend to form a loop. The vertical loops are connected with horizontal pipe (i.e., manifold), placed in trenches, and connected to the heat pump in the building.

##### Pond/Lake

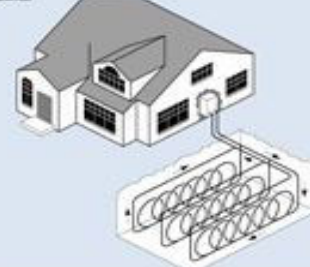
If the site has an adequate water body, this may be the lowest cost option. A supply line pipe is run underground from the building to the water and coiled into circles at least eight feet under the surface to prevent freezing. The coils should only be placed in a water source that meets minimum volume, depth, and quality criteria.

#### Open-Loop System

This type of system uses well or surface body water as the heat exchange fluid that circulates directly through the GHP system. Once it has circulated through the system, the water returns to the ground through the well, a recharge well, or surface discharge. This option is obviously practical only where there is an adequate supply of relatively clean water, and all local codes and regulations regarding groundwater discharge are met.

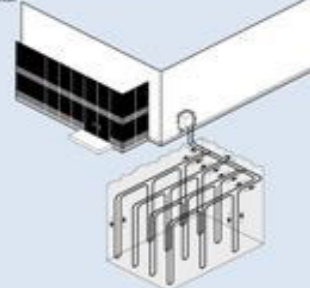
**Closed Loop Systems**

Horizontal



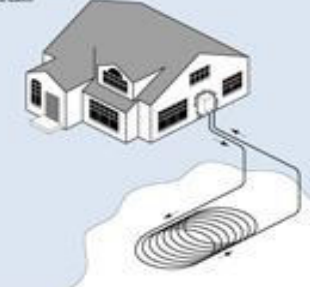
**Closed Loop Systems**

Vertical



**Closed Loop Systems**

Pond/Lake



**Open Loop Systems**







### Swimming Pools

We pride ourselves on customer commitment providing you the best service, technical assistance, extensive range of quality products all at the best prices delivered fast and superb after-sales service all in a friendly and professional way.

Swimming pools come in a wide variety of shapes, sizes and types. Round, oval, square, rectangular and free-form designs are their basic shapes. Some can be as small as a backyard wading pool, while others make their home in large commercial water parks. The materials used in their construction include vinyl, steel, aluminum, concrete, shotcrete, gunite and fiberglass, and variations abound in each category.



- A typical size pool costs more than 1000,00 Euro a year to circulate the water through the filter.

- Our company provides solar powered swimming pool pumps.
- Please read our solar pumps section and **SAVE** that money !!!



**USE THE SUN  
TO RUN YOUR SWIMMING POOL PUMP  
WITH NO COST !!!**







### PLUMBING INSTALLATIONS

Our company uses only PEX (cross-linked polyethylene) pipes for plumbing installations.

#### What is PEX?

PEX is cross-linked polyethylene. Through one of several processes, links between polyethylene molecules are formed to create bridges (thus the term "cross-linked"). This resulting material is more durable under temperature extremes, chemical attack, and better resists creep deformation, making PEX an excellent material for hot water and other applications.

### DRAINAGE & SEWAGE INSTALLATIONS

#### The PVC Advantage

PVC is lightweight, easy to handle and flexible, and offers excellent corrosion and chemical resistance. In addition, the smooth interior surface of PVC pipe provides exceptional flow characteristics. Polyvinyl chloride (PVC) Sewer and Drain Pipe provides a conduit for drainage of sewage, surface water and industrial waste outside the building limits where toughness, dimensional stability, resistance to aging and strong tight joints are required.

### PRESSURE PUMPS

Our company uses GRUNDFOS pumps which is a danish manufacturer of a wide range of centrifugal pumps and systems for water applications in industry, irrigation, heating and wastewater treatment.

