

# AusGeothermalHVAC<sup>®</sup>



heating, cooling & hot water

Save up to  
**70%**  
on home  
energy costs



**Leading the way in DX Geothermal Heat Pumps**

## AusGeothermal is an alternative energy company manufacturing Australian Made Geothermal Heating and Cooling products.

Our primary aim is to manufacture, supply and install cost effective and energy saving DX Geothermal heat pumps to suit any application.

AusGeothermal provide our customers with an environmentally friendly heating, cooling and hot water solution. With energy savings of up to 40% – 70% and by using an Australian owned, operated and made company, we can work together to manufacture a unit for you.

- AusGeothermal DX reverse cycle GSHP's (Ground Source Heat Pumps)
- AusGeothermal DX hydronic GSHP's
- AusGeothermal water to water GSHP's (open loop water bore) or HDPE (High Density Polyethylene ground loops – Pond loops – Slinky loops etc)
- AusGeothermal commercial water to water GSHP's - Custom sizing and design available to suit many applications

### Applications

- Ducted heating and cooling
- Sanitary and bulk hot water
- Hydronic heating
- Large scale hydronic heating
- Nursing homes/hospitals
- Hot houses/growers
- District heating
- Swimming pools

### What is Direct Exchange (DX) geothermal heating and cooling and how does it work?

Geothermal is an alternative energy source that takes the heat from the earth, where the temperature is a constant 15 degrees, and uses that energy to heat and cool your home or business.

In the DX Geothermal system, high grade copper tubing is placed in the ground in a closed loop filled with refrigerant. The refrigerant circulates through the tubing, exchanging heat with the soil through the walls of the copper.

**In winter** the refrigerant is taken from the ground pipes and put under high pressure which causes it to rise from 0 degrees to 80 degrees. This 80 degree refrigerant is then used to heat your radiant or domestic hot water, or sent to your air handler, where it is converted to clean, hot air that is sent throughout the duct work in your home.

**In summer** the system runs in reverse, sending cold air through your duct work, removing heat and humidity from your home and pumping it into the ground.

Hot Water • Save up to 70% on bills

### When this system is being used for heating or cooling hot water can be produced for free.

Heat from the earth can be absorbed or dissipated in many ways using:

- ground water from lakes, dams, aquifers, (existing and new water bores can be used with AusGeothermal open loop GSHP's)

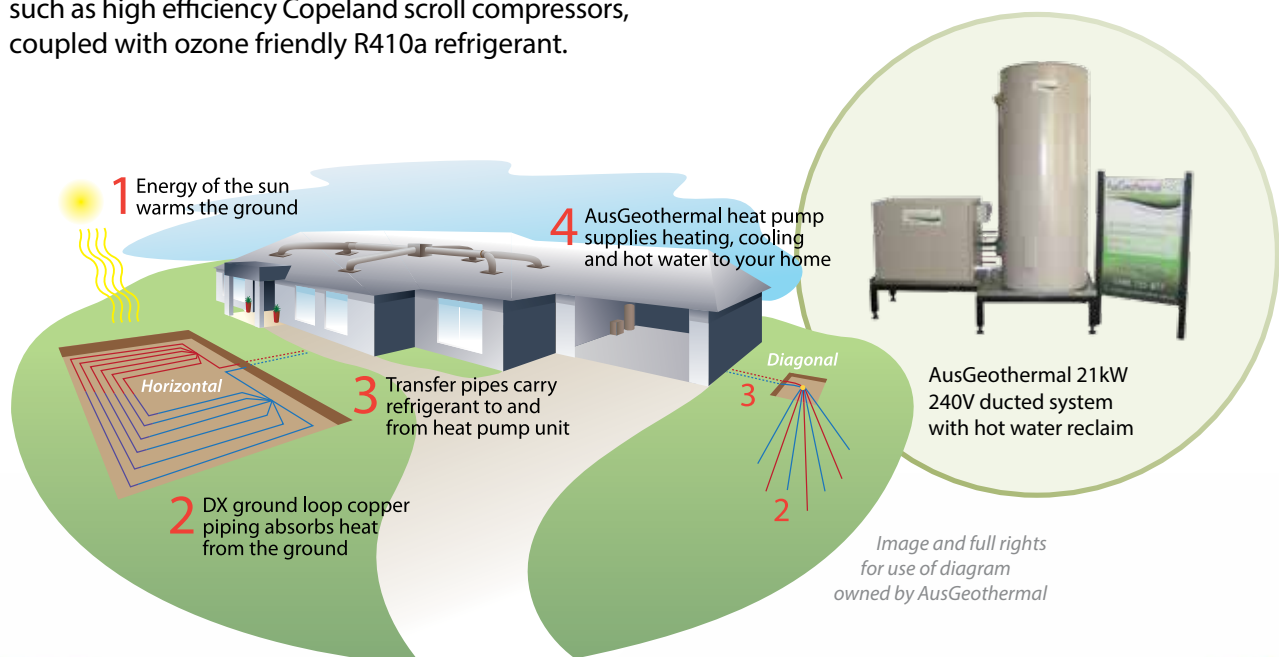
Earth temperature is transferred by:

- Copper refrigerant loops (drilled and grouted )
- Copper refrigerant loops (trenched and back filled)
- HDPE water loops (drilled and grouted)
- HDPE water loops (trenched and back filled)
- HDPE pond loops

### Features of the DX geothermal unit

AusGeothermal heat pumps are manufactured using the highest quality parts and latest technology, such as high efficiency Copeland scroll compressors, coupled with ozone friendly R410a refrigerant.

- Single phase 240v, 50 Hz units can be supplied in a range of capacities from 5-20kW. Our 18-20kW unit is very popular for clients with no natural gas and only single phase power supply, soft starters are used to reduce current draw on unit start up. Unit can be configured to supply ducted heating and cooling, as well as all your hot water needs including domestic hot water and hydronic heating.
- Three phase 415v; 50 Hz units can be manufactured in any size to suit your heating and cooling needs.
- AusGeothermal units are manufactured in kit form for easy installation. Information and installation courses can be arranged for interested installation companies.
- **5 year limited warranty** on heat pump parts and labour. **20 year limited warranty** on ground loops.



**5 Year  
Warranty**  
Domestic Parts  
Warranty

## Hydronic Heating

Supply and installation of clean, quiet, economical hydronic heating systems for your home

AusGeothermal design and manufacture a full range of geothermal hydronic ground source heat pumps that can be used for heating your home including:

- In slab hydronic floor heating
- In screed hydronic floor heating
- Wall mounted hydronic panel radiators
- Hydronic trench converters
- Heated towel rails
- Heated clothes drying cupboards
- Swimming pool heating.

### **Our systems are designed to suit your needs.**

Hydronic heating systems can be designed to suit your application, incorporating all your heating and hot water needs using a common AusGeothermal ground source heat pump system.

### **Remote control for ultimate comfort control.**

AusGeothermal automated control systems give the ultimate in comfort control, letting you zone and temperature control each room and appliance individually.

Your hydronic heating system can be set up for remote control using:

- An iPad
- An iPhone
- Laptop
- Android

The system also incorporates data and power management logging.

**Geothermal hydronic heating systems are the cleanest, quietest, most economical and comfortable means of heating available.**

AusGeothermal can retrofit existing hydronic systems, giving you the ultimate in energy efficiency performance and endless sanitary/ domestic hot water supply

### **Benefits of hydronic heating:**

- Environmentally friendly
- Clean, healthy dust free environment (great for asthma and allergy sufferers)
- Silent and comfortable Natural convection
- Safe child friendly
- No maintenance
- Low running costs with very high C.O.P

We supply and install systems throughout Australia. Contact us to find out if an AusGeothermal hydronic heating system is right for your home or swimming pool.



### **Want to know more?**

For further information please contact our team at AusGeothermal HVAC.

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