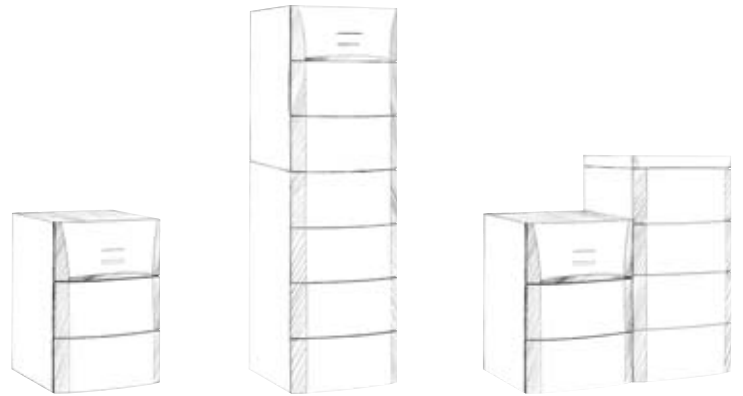




# GSHP

GEOTHERMAL HEAT PUMPS

ADVANCE



All the energy from the earth and the water

- >> Energy saving options
- >> Born of respect for nature
- >> Year-round comfort



SOLAR  
SOLID FUEL  
HEAT PUMPS  
CONDENSING OIL/GAS

**De Dietrich**   
Sustainable Comfort®



# EARTH AND WATER FOR YOUR COMFORT

## Intelligent control

- Control and programming of a direct circuit, DHW circuit and mixing valve circuit, with Diematic iSystem

## High performance

- Stability of temperature sensing

Up to



## Aesthetics

- Buried collectors make the installation extremely discreet

## Multi-energy solution

- Can be incorporated into an existing installation
- May be combined with a solar heating system or a boiler

## Year-round comfort

- Heating in winter, cooling in summer
- Very quiet in operation, only 49dB max. 1 metre distance



GSHP heat pump





ENERGY SAVINGS

UP TO

80%

CO<sub>2</sub>-EMISSIONS

0g

### Solution to suit your land

There are two ways of recovering heat from the ground and turning it into energy for heating and domestic hot water production:

- collectors in the ground, horizontal (buried collectors) or vertical (by drilling)
- collecting water from the water table

The GSHP geothermal heat pump ranges provide both these solutions.

### Discreet well-being

Almost invisible from outside and very quiet, the geothermal system knows how to be discreet. You will only know the system is there by the heat it produces in winter and the sense of coolness in summer, with its reversible option.

### Up to 80 % savings on your heating bill

For every 1 kWh of electricity consumption, the heat pump produces an average of 5 kWh of heat. So you recover 4 kWh free of charge.

### Protecting nature

Choosing a high-efficiency heat pump for your heating means choosing a pollution-free form of energy that respects nature: no fossil fuel used, no CO<sub>2</sub> discharged into the atmosphere. The water taken from the water table is not lost, it is restored to its natural environment.

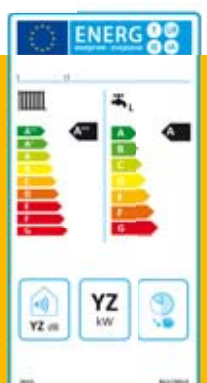
With Advance,  
demand the best for  
you and for the planet.



Created by De Dietrich, the **ECO-SOLUTIONS** label guarantees you a range of products in line with European Directives on Ecodesign and Energy Labelling. These Directives are into effect since the 26 September 2015 and apply to heating and domestic hot water production appliances.

With De Dietrich **ECO-SOLUTIONS**, you can benefit from the latest generation of multienergy systems, easier to use, with better performance and energy savings, designed to give you greater comfort while caring for the environment. **ECO-SOLUTIONS** also mean expertise, advice and a wide range of services from the De Dietrich professional network.

The energy label, in combination with the **ECO-SOLUTIONS** label, will provide you with information on the product's performance. More info at [ecodesign.dedietrich-heating.com](http://ecodesign.dedietrich-heating.com)





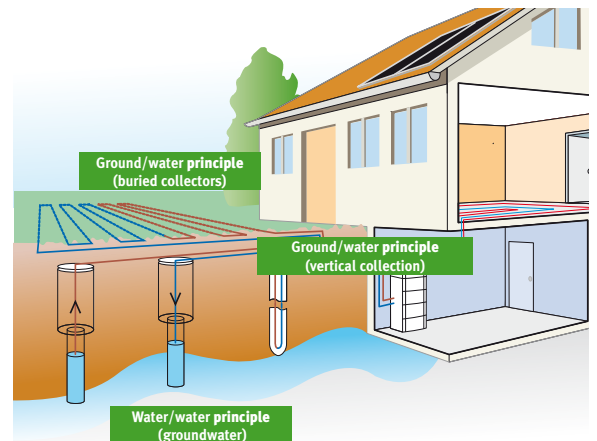
# THE EARTH, A SOURCE OF COMFORT ALL YEAR ROUND

## Energy drawn from the earth

1

Geothermal systems draw heat from the ground through vertical or horizontal collectors, depending on the configuration of the ground, and restore it as hot water for heating or domestic hot water in your home.

- With horizontal collection, the energy is recovered by collectors buried at a depth of between 80 to 120 cm. Water circulates in these tubes and carries the energy to GSHP.
- With vertical collection, a probe is buried in a borehole that can be up to 100 m deep, carrying water that recovers the energy to supply GSHP.
- Collecting energy from the groundwater (borehole from 5 to 10 m), GSHP ensures a constant temperature for heating the house. The water is not consumed, it is returned to the ground.



**BENEFIT**  
Multiple solutions

## High performance for comfort and energy savings

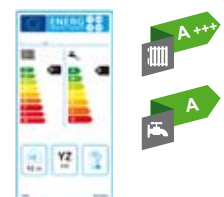
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GSHP stands out for its high performance, with a **COP up to 5.6** at 10°C. For every 1kWh electricity consumed, you recover 5.6kWh free of charge.

You make **up to 80 %** energy saving\*.

- The **geothermal system** ensures reliable collection temperature stability whether from groundwater or from the ground.
- GSHP provides a wide power range, from 5 to 27 kW with 9 models available, all able to ensure a starting temperature for **water heating of 65°C**, ideal for renovation
- Guaranteed comfort, summer and winter, because GSHP is **reversible** and **cools your** home in summer.
- GSHP complies **fully** with European **Eco-design** and **Energy labelling** standards. Its heating and hot water performance is up to A++.

\* Compared to an oil-fired boiler, 18 to 20 year old, without programming



**BENEFIT**  
up to 80% energy saving

## Protect the planet, a choice made with GSHP

3

By choosing GSHP, you are choosing to cut your fossil fuel consumption and significantly reduce the CO<sub>2</sub> emissions of your home.

- Water and earth are sources of huge quantities of energy, which is constantly renewed. **GSHP takes heat from the environment and turns it to energy for heating or cooling your home**
- GSHP lets you monitor **your energy consumption** to keep a close eye on your usage.



**BENEFIT**  
0 g CO<sub>2</sub> emissions



## Discreet installation

4

The GSHP heat pump is easy to install in your home, whether existing property or new build.

- The geothermal principle does not necessarily need a collection area on the ground, if boring or extraction from the groundwater is chosen
- It is discreet both visually and in terms of noise, with an acoustic pressure of only 49dBA at 1 metre.
- The indoor module with a water heater placed vertically below the heat pump module or alongside can fit into small spaces.

**BENEFIT**

**Complete solution**

## Diematic iSystem control freedom at your finger tips

5

From advanced research by De Dietrich, Diematic iSystem is the new controller at the heart of the system. Designed to control everything it is:

- **INNOVATIVE:** High-tech design with new, extra-wide LCD screen, rotating button and touch keys
- **INTUITIVE:** Easy to read and navigate with text commands and on-board mini-manual.
- **INTELLIGENT:** Extended functionalities and options Manages several heating circuits (radiators, underfloor heating, pool, etc.) and domestic hot water
- **INTERACTIVE:** Very easy to use, wireless remote control Control when away from home with Telcom 2, welcome to the world of home automation.



## Guaranteed domestic hot water convenience

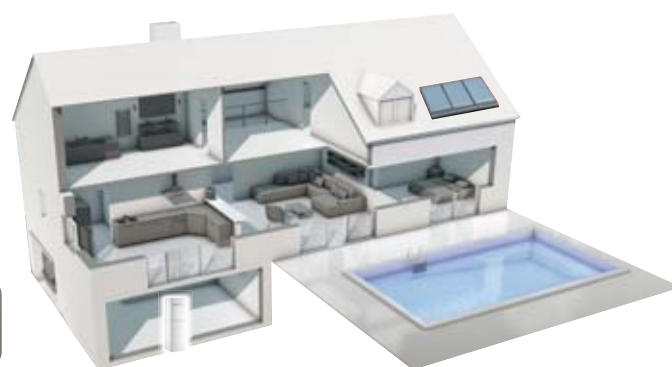
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Thanks to the Diematic iSystem controller, GSHP can run a domestic hot water production circuit. With **GHL hot water cylinders fitted with a large plate exchanger**, the hot water needs of a family are met with a tank capacity of only 194 litres!

- You make savings on your hot water costs with a **COP of 2.7**
- You can go further by adding a **GSHL solar water heater, to combine the free energy from both the ground and the sun**
- The hot water cylinders, together with GSHP provide constant hot water, heating the tank in less than an hour, depending on the models
- Water quality is ensured with high-quartz content enamelling of the cylinder
- Long-term guaranteed comfort with **protection for the cylinder by a "Titan Active System"** anode in durable titanium.

**BENEFIT**

**Abundant free hot water**

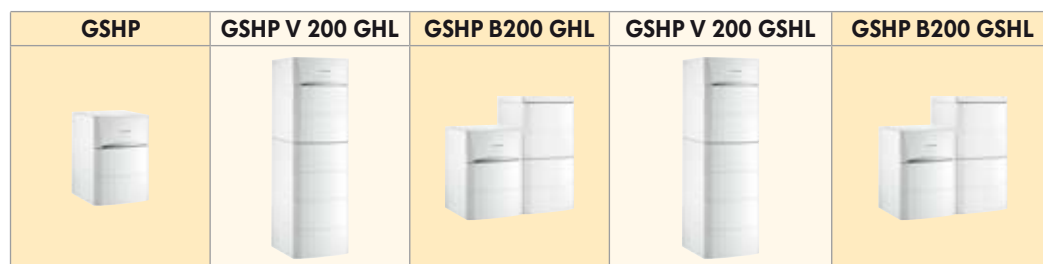


## Heating the house with geothermal energy (sun/water or water/water)

A heat pump using the geothermal principle takes nature heat from the ground or from the groundwater layer. The coefficient of energy performance (COP) varies from 4.5 at 0°C to 5.6 at 6°C.

		Horizontal collection	Vertical boring	Drawing from groundwater
Type of construction	New homes	●●●	●●●	●●●
	Renovation with low temperature radiators	●●	●●	●●
	Installation as auxiliary for existing boiler	●●	●●	●●
Available ground	Surface area 2 to 3 times the habitable surface area	●●●	--	
	No land available	--	●●●	
	Groundwater layer available for boring			●●●
Quiet operation		●●●	●●●	●●●
Minimum installation investment		●●	●	●●
Energy savings		●●●	●●●	●●●

## MODELS



### Size and weight

Height (cm)	86.3	199	120	199	120
Width (cm)	60	60	120	60	120
Depth (cm)	76.5	78.5	78.5	78.5	78.5
Weight (kg)	127 to 162	243 to 276	246 to 279	258 to 291	261 to 294
Type of heat pump	ground/water or water/water			ground/water or water/water with solar back-up	

### Technical characteristics



<b>PERFORMANCE</b> Heating	A++	A++	A++	A++	A++
<b>PERFORMANCE</b> Domestic hot water	A	A	A	A++	A++
Heat output capacity	5.7 to 27.9kW		5.7 to 17.1kW		
COP*	4.1 to 4.5				
COP**	4.7 to 5.6				
Refrigerant fluid	R 410 A				
Electricity supply	monophase/three-phase				

### Functions

Heating	•	•	•	•	•
Cooling with specific kit	•	•	•	•	•
Domestic hot water production		•	•	•	•

### Control

Diematic iSystem	•	•	•	•	•
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\* according to EN 14511 glycolised water intake temperature 0°C, water output temperature +35°C

\* according to EN 14511 water intake temperature +10°C, water output temperature +35°C

## A FRENCH QUALITY MARK

For over 3 centuries, De Dietrich has based its success on an unchanging demand for quality, reliability and durability. As a forerunner in the field of environmentally-conscious heating technologies, De Dietrich has steadily pursued a dual objective: to protect the planet, while offering you the best in comfort. At the cutting edge of innovation, De Dietrich multi-energy systems make a significant contribution to cutting your energy consumption and your CO<sub>2</sub> emissions. Choosing De Dietrich means investing in a heating solution that will ensure your well-being and peace of mind. For a long time.

*De Dietrich: the choice for Sustainable Comfort®*

Your installer:

**De Dietrich** 

De Dietrich Thermique

SAS with corporate capital of 22,487,610 €

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