

HEAT PUMPS

COSY CLEAN SUPER-EFFICIENT HEATING AND HOT WATER

30 years of research and development from our Austrian partners at IDM has ensured truly quality heat pumps delivering class-leading COPs*.

Rising above other top quality heat pump systems, IHS are proud to be able to offer heat pumps incorporating unique HGL technology, system enhancement that delivers hot water up to 55°C alongside supplying full space heating requirements.

IHS Terra Heat Pumps

IHS Terra S/W heat pump units are available in sizes from 5kW to 45kW and are suitable for locating in garages, utility or plant rooms.

IHS Compact heat pumps are available in size from 5kW to 12kW and are specially designed to suit modern houses.

The **Terra MAX** units are available in size from 50kW to 90kW and are designed for larger buildings such as hotels, schools, office buildings or large older buildings.



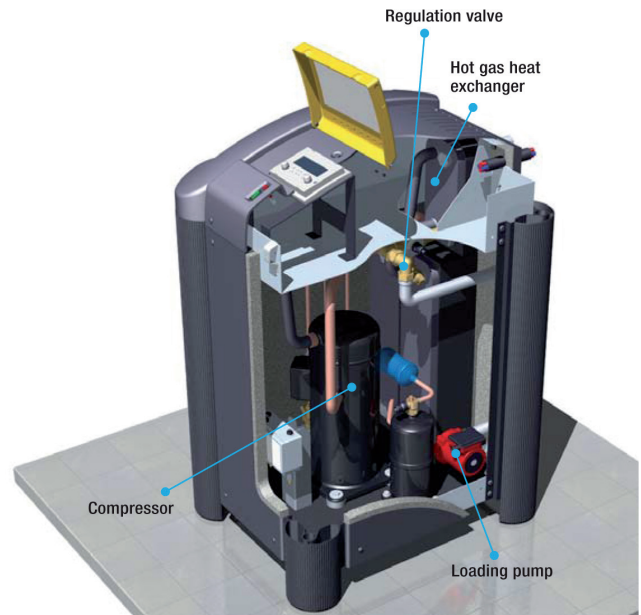
Terra Heat Pump 5-45kW



Compact Heat Pump 5kW-12kW



Terra MAX 50-90kW



Benefits

- Reduced heating costs; highly efficient
- Capable of delivering 100% heating and hot water requirements
- Broad size range from 5kW to 90kW
- HGL function delivers enhanced hot water efficiency using continuous system optimisation
- Ideal combination with underfloor and wall heating and solar thermal systems
- Weather and load-compensation possible
- Suitable for houses, commercial premises, swimming pools and micro-district heating systems
- VAT for domestic applications reduced to 5%

*COP is a measure of heat pump efficiency. If a heat pump uses 2.5kW of electricity and outputs 10kW of heat, simply divide 10 by 2.5 to calculate a COP of 4.0. Account must be taken of the incoming temperature of the energy source (air, water) and the heating medium being output in order to ensure accurate comparison. Ground source heat pumps are quoted typically at BO/W35 standard – ie incoming heat source is 0°C and outgoing heat medium is 35°C.

IHS Solutions

Underfloor Heating

Ground Source Heat Pumps

Air Source Heat Pumps

Thermal Stores & Hot Water Tanks

Solar Thermal Systems

Manifolds, Pipe & Controls

Road Energy

Lewis Plates

Heat Collection Methods

The heat pump uses its refrigeration cycle to absorb heat from the surrounding ground. A heat exchanger extracts this heat to create heating and hot water. A range of installation options are available:

Horizontal (Trench) Collection

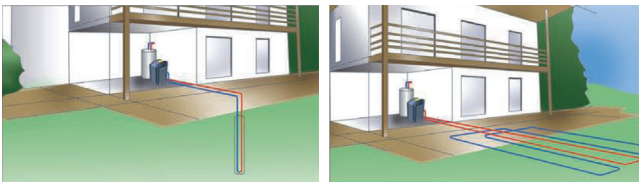
Layers of plastic pipe are buried in a series of trenches, the length of which is carefully calculated to match the heat load.

Closed Loop Borehole

In this case, plastic pipe with a U-bend is lowered into a borehole of sufficient depth and back-filled.

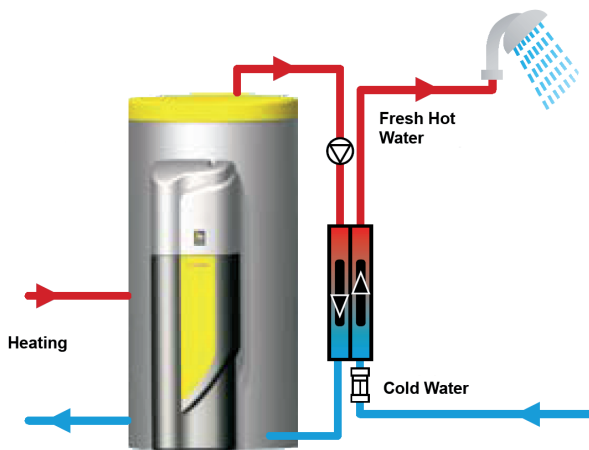
Open Well

Ground water is pumped from a well and then fed back into the ground through an injection well.



IHS Heat Pumps 100% Heating and Hot Water

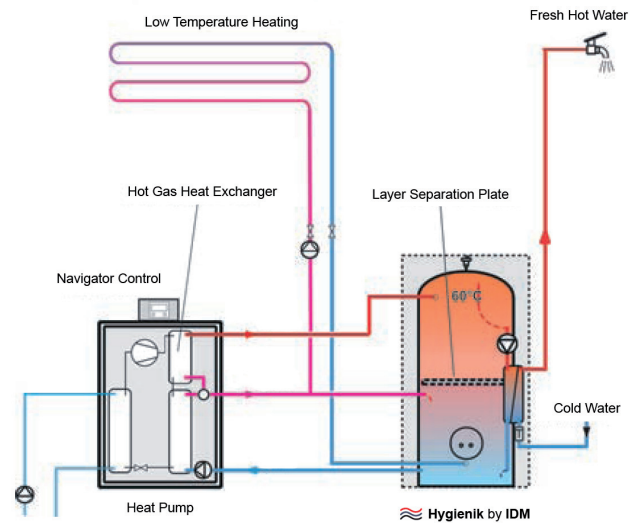
IHS heat pump systems are designed to supply your full heating and hot water requirements.



Every heat pump is supplied with a Hygienik Tank which is a combined thermal store and hot water delivery system. Fresh, bacteria-free hot water is delivered at a temperature between 45°C to 49°C.

Extra Efficiency With Unique HGL Technology

HGL is a special hot gas-loading technology ideal for enhancing heat pump efficiency. It continuously optimises the system to ensure maximum efficiency and performance. With two hot water outputs, it can produce domestic hot water at up to 55°C in the tank while still delivering heat for the heating circuit at 35°C.



Combining any IHS heat pump with HGL technology helps to save extra energy, sending up to 85% of the energy back into the heating circuit at 35°C. The remaining energy reaches 55°C and is used for hot water via the Hygienik Tank. Thanks to the buffer accumulator and HGL feature, the heat pump switches on and off less frequently, extending the life of the compressor and enhancing system efficiency.

Control

IHS heat pumps incorporate Navigator control which allows for remote monitoring via mobile phone or internet. Navigator features active weather compensation, allows for total system control and contributes to overall system efficiency.

