

# AIR SOURCE HEAT PUMPS

## IHS Heat Pumps for Heating, Cooling & Hot Water

There's an energy efficient solution to suit every building and lifestyle and at IHS we can design the most energy efficient and practical solution to suit.

IHS Air to Water Heat Pumps use freely available energy in the ambient air to provide heating and hot water, even at temperatures as low as -20°.

These heat pumps are an ideal combination with lower temperature underfloor and wall heating and can also be combined with low temperature radiators.

### ...And Very Quiet

For its size, it is remarkably quiet - as low as 35dB(A) at 5m. Its fully thermally insulated casing separates the machine's interior from the outside environment. This results in both considerable sound insulation and optimal thermal insulation.

### Super Efficient

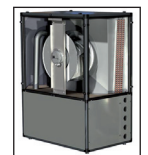
The Terra CL Air Source Heat Pump is one of the most efficient on the market. This is due to:

- the size of its evaporator heat exchanger which is larger than many conventional models
- its extremely powerful radial fan generates high air pressure which increases the heat pump's output to the maximum. A single kW of electricity can generate up to 3.8kW of heat
- an intelligent bivalent control system regulates the use of any additional heat source
- its ability to reduce consumption by only defrosting when it is actually required (COP at A2/W35 EN 255)



### Benefits

- Reduced running costs; one of the most efficient air source heat pumps on the market
- Better performance at lower temperatures means less reliance on costly electric immersers
- Extremely fast and efficient de-frosting function: warm water re-circulated rather than de-frosting by an electric element
- Capable of delivering 100% heating and hot water requirements
- Ideal combination with underfloor and wall heating and solar thermal systems
- Suitable for interior and exterior installation
- Suitable for houses, commercial premises, swimming pools and micro district heating systems
- Extremely quiet operation
- No ground works or borehole installation required
- VAT on domestic applications reduced to 5%



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

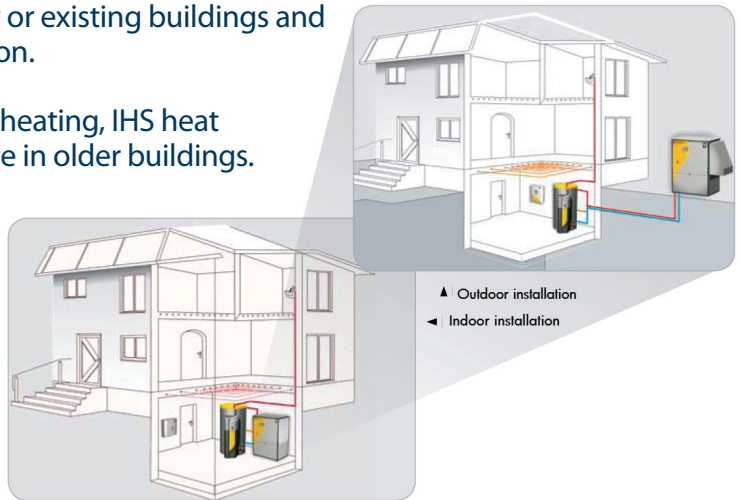
## Installation

Our air source heat pumps can be installed in new or existing buildings and are suitable for both indoor and outdoor installation.

Ideal with lower temperature underfloor and wall heating, IHS heat pumps can also be combined with radiators for use in older buildings.

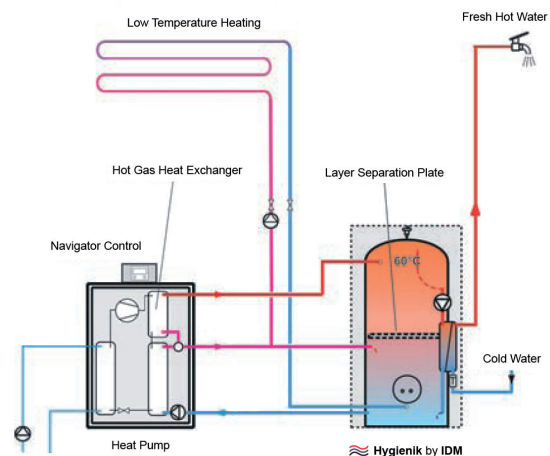
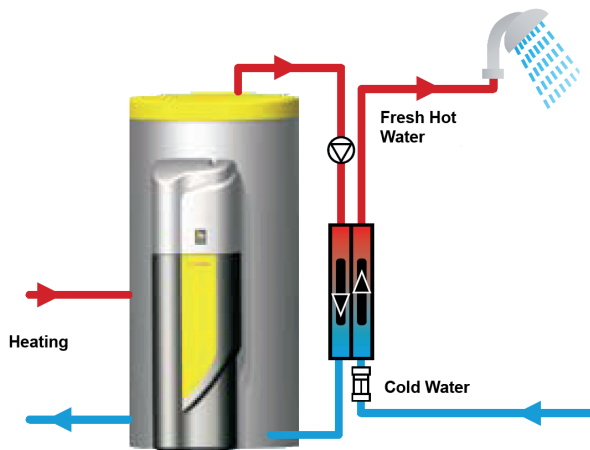
## IHS heat pumps – 100% heating and hot water

Connected to the uniquely designed Hygienik fresh water tank, our air source heat pump systems are capable of delivering 100% of your heating and hot water requirements. With a performance range of 8 – 33kW, they're ideal for a range of building types. They can also be used to heat swimming pools. 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 and 49°C.



## Extra Efficiency With Unique HGL Technology

HGL is a special hot gas-loading technology ideal for enhancing the Terra CI heat pump's 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.



## Control

All 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



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.