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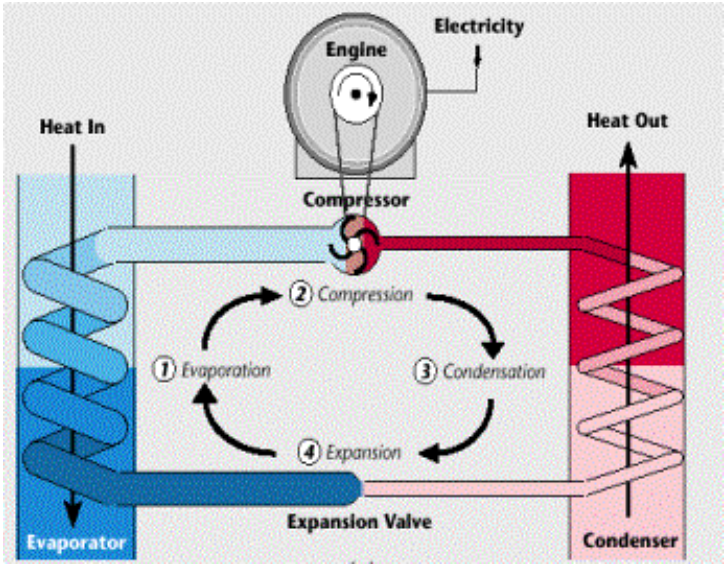
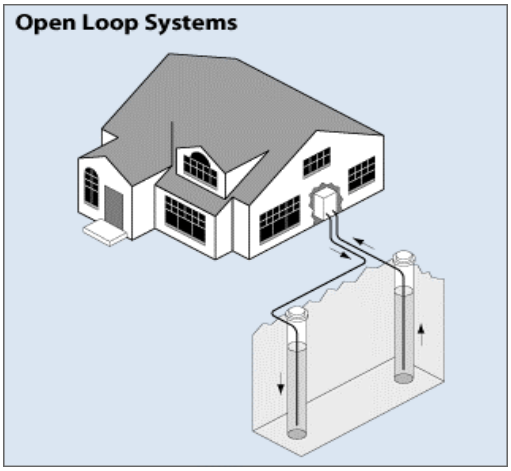
Complete Water Solutions

# Background information on open loop ground source heat pumps




Heat from the groundwater is absorbed at low temperatures via the heat exchanger into the distribution side of the heat pump. The number and depth of boreholes required to support the heat pump will depend on the heat load of the property.

The heat pump utilizes a compressor that raises the temperature of the water to a higher level which passes through a heat exchanger and heats the load side of the heating system, this can then heat water for the heating and hot water circuits of the house. The cooled water can then be used as a private water supply, run to a watercourse or additional 'waste water' borehole.




Normally the supporting borehole needs to be between 60 – 100m to ensure the water flow is adequate, this can cost an additional £4,000 - £5,500 per borehole plus the cost of the pumping and control equipment. Heat pumps have some impact on the environment as they need electricity to run, but the heat they extract from the water is constantly being renewed naturally.