

# the technology: energy spectrum heat pipes

## How They Work

Each Energy Spectrum Heat Pipe contains a working fluid in a vacuum. When the lower end of the pipe is heated the liquid turns to vapour absorbing the latent heat of vaporisation. The hot vapour flows to the upper end of the pipe where it condenses and gives out the latent heat. The recondensed liquid then flows back down to the hot end of the pipe. Since the latent heat of evaporation is usually very large, considerable quantities of heat can be transported with a very small temperature differential from one end of the pipe to the other.

The amount of heat that can be transported as latent heat of vaporisation is usually larger than can be transported in a conventional convective system with an equivalent temperature difference.

## The Heat Pipe Advantage

Energy Spectrum Heat Pipe Heat Exchangers offer many distinct advantages over more common heat exchange technologies. All Energy Spectrum Heat Pipe Heat Exchangers are made of a series of individual heat pipes filled with a working fluid suitable for operation within the temperature parameters of the system.

## Specific advantages include:

- No moving parts for virtual maintenance free operation
- Integral design minimising the adverse effects of metal expansion
- Significantly lower pressure drop than other H/E technologies
- More efficient and therefore more cost effective than other similar solutions.

## For more information contact:

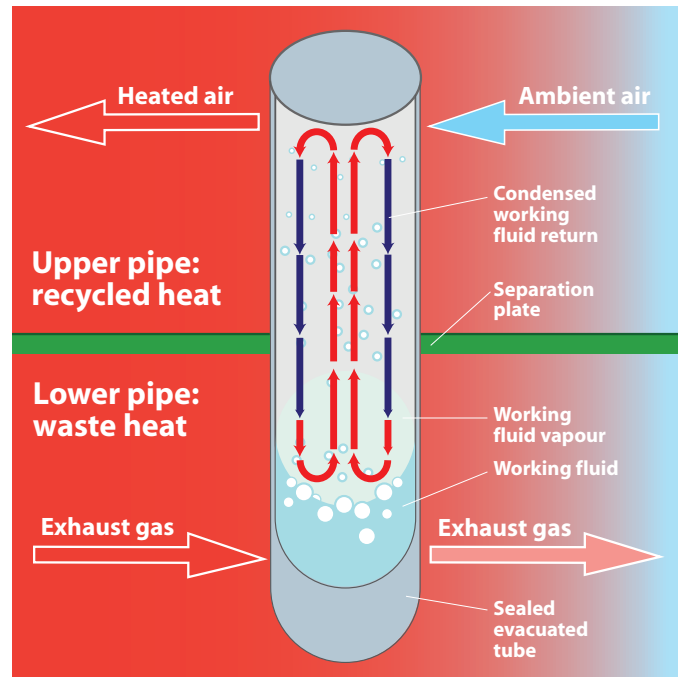
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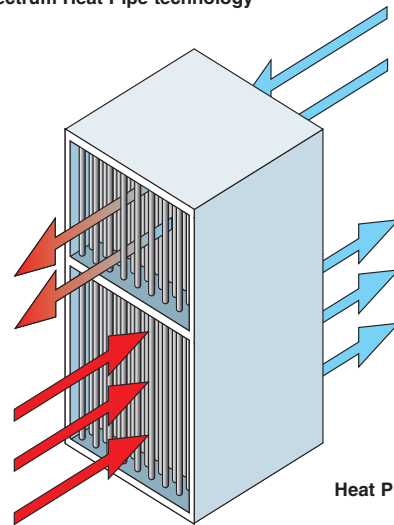
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Energy Spectrum Heat Pipe technology



Heat Pipe Heat Exchanger

## Features:

- Zero cross contamination as pure energy is all that is transferred
- High temperature applications
- A range of working fluids and pipe materials are available, ensuring versatility to suit all required temperature applications
- Independent operation of each individual pipe hence each unit is less vulnerable to failure
- Collectively heat pipes are highly reliable due to 'intrinsic redundancy' features offering optimum performance
- Modular design for ease of handling, installation and maintenance
- High efficiency ensures minimal loss of energy.