

HEAT PUMP TECHNOLOGY



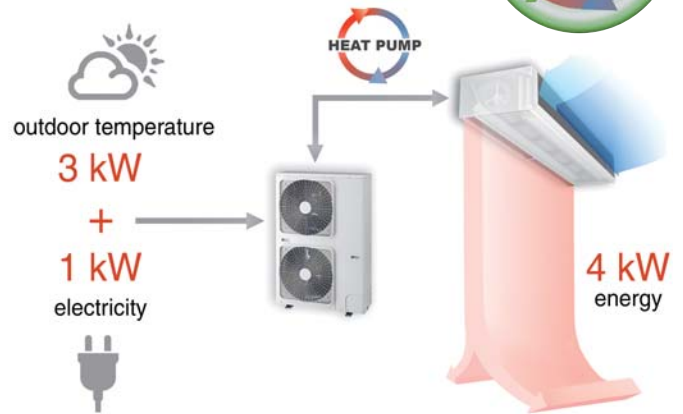
Energy saving air curtains that heat and cool

How it works

A heat pump is a device that uses a small amount of energy to move heat from one location to another. This system is extremely efficient because it simply transfers heat, rather than burns fuel to create it.

It consists of a closed circuit through which a special fluid (refrigerant) flows. This fluid takes on a liquid or gaseous state according to temperature and pressure conditions.

The circuit is composed of a compressor, condenser, expansion valve and evaporator.



Advantages and benefits

The new heat pump air curtains are efficient at reducing heat costs and CO₂ emissions by up to 70%.

- Very high energy efficiency ratings to save money on your energy bill
- Short payback period thanks to the high level of energy savings
- Heating and cooling included in the same system (reverse cycle)
- Environmentally friendly with low energy consumption

Available heat pump air curtains:

- Heating/cooling: Smart, Windbox, Windbox Industrial, Windbox Recessed.
- Heat only: Invisair, Rotowind, Rund and Zen.

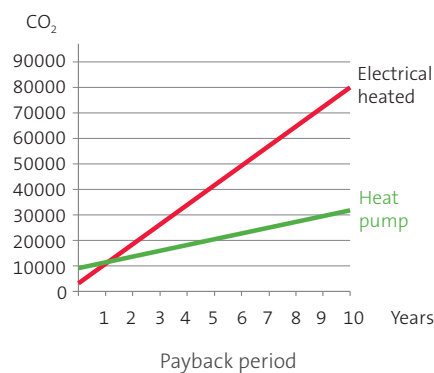
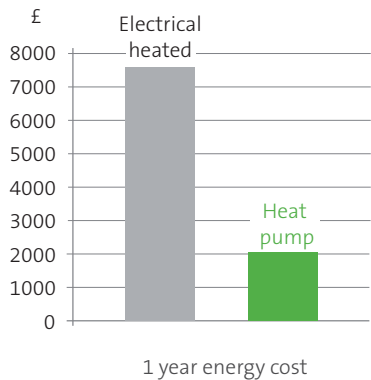
Heat pump vs electrical air curtain - energy saving example

How much money can I save using a heat pump air curtain?

Example:

- Door dimension: 2m width by 3m height
- Running time: 12 hours/day, 6 days/week, 26 weeks (~ 1/2 year)
- Energy cost: £0.15 kW/hr
- Selected unit: G 2000, 27kW

	EC air curtain	Heat pump air curtain	Difference
Total heating power	27kW	27kW	0
Air curtain price	£4,317	£9,063	£4,746.00
Total energy consumption	50544 kW/hr	15270 kW/hr	-35274
Energy cost	£7,582	£2,291	-£5,291.00
CO ₂ emissions	26637 kg	8047 kg	-18590



Result: The payback period is approximately 1 year. The price of the heat pump air curtain is recovered in nearly 16 months. From then on savings on energy usage will be experienced. Installing a heat pump air curtain will reduce CO₂ emissions to the environment.

