

# Air to Air Heat pump's before you buy consider,

**Background noise** – You will no doubt have seen major heat pump suppliers claiming how quiet their units are – but, consider this, you are sitting quietly maybe reading or perhaps surfing the net, there is nothing more irritating than a persistent background noise even if it's only a few decibels -you will be aware of it, and remember – the outside unit also makes a noise which they don't mention in the ads!!



**Co Efficient of Performance or COP**, a term often used – for example a supplier company might quote a COP, of - four KW of heat output for every one KW of power input (*or in heat pump sales talk four dollars of heat for every dollar spent!*) In truth, this often describes rarely achieved optimum performance.....

**Operation at low temperatures** – the lower the temperature the lower the COP will drop until the unit becomes little more efficient than a fan heater – Some companies make claims that their products continue to perform well giving effective heat even at low or sub zero temperatures, But at what cost?, often this is by the use of a secondary in built heating element –Remember in principal Heat pumps work by compressing temperature, if its freezing outside there is nothing to compress. **Heat pumps are at their least efficient for heating when you need them most**



**Heat Perception & heat distribution.** It is a fact that air movement has a cooling effect even if the flow of air is warm – For example if you are sat in the heat discharge field of a heat pumps fan the movement of air over your body has a cooling effect, so – for you to have the same perception of warmth as you would at 20 degrees with a stable heat such as a radiator system – you would need to run a heat pump at between 22 and 24 degrees. Also we all know heat rises! -If your heat pump is high mounted on a wall then you might consider how effective will it be at low level. Though the heat pump is pushing heat with a fan it is naturally trying to turn and go up, its a known fact that if your feet are cold, you will feel cold!



Heat pump – fan forced



Radiator – natural convection



Under-floor- natural rise

**Health benefits ?.** Heat pumps are fitted with filters to take out dust “great!” -Given that they actually stirred up the dust in the first place, and the filter only picks up some of this dust as it passes through the unit – but not all the dust lifted into the atmosphere passes through the filter most of it remains within the atmosphere of the room.

Many people also find that air conditioning dries the air too much, leaving the throat and nasal passage dry when this is combined with the higher dust, you can see why heat pumps are not ideal if you have respiratory problem such as Asthma. **Food for thought!!**