

**+10% Reduction in total site gas consumption**



**EnerJon**

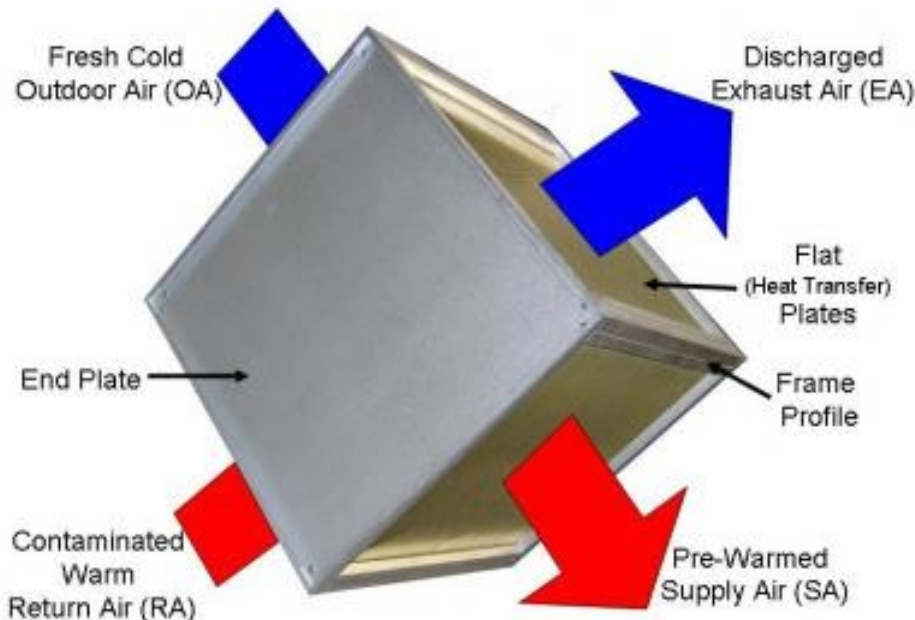
**Energy Efficiency**

# Heat Recovery Improvement

A multinational beauty care manufacturing site wanted to reduce energy consumption, an energy efficiency project was identified by Enerjon to recover waste heat from hot extract air and transfer it into cold 100% fresh supply air.

In cold winter months heating large volumes of 100% fresh air can be extremely energy intensive, requiring lots of Gas or Steam input energy to the heating coil. By recovering the heat from the exhaust air a large percentage of the waste heat can be recovered to warm the fresh air, this in turn reduces the input energy on the supply AHU.

The schematic below shows the principal.



## The Results

The heat recovery system will achieve the following improvements:-

- A 60% heat recovery rate from extract air to fresh supply air.
- Annual gas savings to the site of 783,731 KWH, reduced annual carbon emissions by 142 tonnes.
- Payback period for all project costs was 25 months.
- Other benefits include significantly reduced winter peak loading, this together with other significant heat saving initiatives carried out at this site allowed a much smaller & efficient steam boiler to be installed at a greatly reduced capital cost.

**Enerjon**

Tel:- (01670) 505898

24hr Mobile (07709) 132566

Email:- [jon@enerjon.co.uk](mailto:jon@enerjon.co.uk)