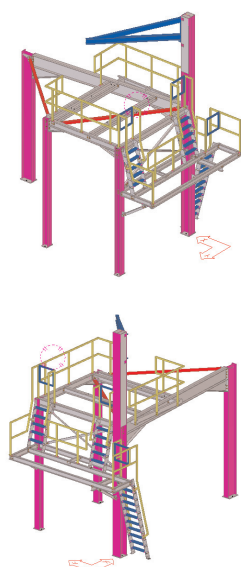


# Bespoke Heat Recovery System



**Fireant Associates are a specialist engineering and air filtration company successful in the design and installation of technically challenging projects for a number of high profile clients**

**Formed in 2004 and through a network of business partnerships, Fireant commissioned this installation in February 2006.**

## Overview

Designed to offer uninterrupted service this installation utilises waste heat from four TS20 compressors to heat workshops and packing hall whilst providing failsafe ventilation from the compressors ensuring that they do not overheat.

## Economical

Compressors produce a significant amount of low grade waste heat which can be reclaimed and utilised to heat entire workspaces without the need for traditional steam heaters. Installing this type of energy efficient system has a number of economical advantages:

- 1) Lower site carbon emissions
- 2) Energy efficient schemes may be awarded grants for up to 50% of the capital cost.
- 3) A quick payback period as shown below:

Compressors: 4 off TS20  
 Waste Heat: 160kW per compressor  
 Airflow: 32,300m<sup>3</sup>/hr per compressor

### Basics for payback

Energy Cost = 4p per kWh  
 Beneficial Time = 10hrs/day x 6 days per week x 26 weeks  
 = 1560 hrs

Value of heat reclaimed = 4 x 160kW x 1560hrs x 4p per kWh  
 = £39,396

### System running costs

*summer* = 26wks x 24hrs x 7 days x 45kw x 4p/kWh  
*winter* = 26wks x 24hrs x 7 days x 55kW x 4p/kWh  
 £17,472

**Annual Cost Saving = £22,464 (£39,963 - £17,472)**

**fireant**  
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 small but effective

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