

Resource Navigator Club Member

Central Joinery

Case Study – Use of Wood Dust

Company Overview





Left, Central Joinery wood dust handling system, storage silo, and burner.



Central Joinery was established in 1993 and has specialised in the manufacture of staircases and other prefabricated joinery products for the building and refurbishment industry. The company employs 45 staff, and is located in Cadley Hill Industrial Estate near Swadlincote. Customers include Persimmon Homes, Crest Nicholson and Various Builders Merchants such as The Wolseley Group, Buildbase, Jewson etc. Turnover has increased by 20% over the last 3 years.

When the factory was built, compressor manufacturers were contacted, and two 60 cfm compressors were installed to meet the compressed air requirements of the production area. These have served the company well, and the company's management believed that there was little opportunity to optimize compressed air delivery, as the system was relatively new and free of leaks.

Initial Measurement and Analysis

As part of the RNC process, initial base-line data was collected for the period April 2005 – March 2006. Interpretation of the data revealed the substantial size of the waste streams leaving the premises. It also highlighted that excess material was being burned on site in summer to reduce waste collection and landfill charges, despite there being no use made of the heat produced.

Opportunities

Whilst burning the wood offered better environmental performance than sending it to landfill, the possibility remained that the wood could be used as a resource, and not be unnecessarily perceived as a waste.

The RNC Team indicated that air heated by the incinerator could heat the factory offices as well as the shop floor.



RAAAD ASSOCIATES





Actions

Given the volume of wood waste identified, efforts were made in January 2007 to locate companies that required this material as a feedstock, and were prepared to collect, and pay to take it away.

The use of hot air heating of the company offices is now under investigation as part of the company's commitment to continuous improvement.

Outcomes



Left, Central Joinery's wood dust handling system.

Right, Central Joinery's wood recycling – on the right hand-side, the wood incinerator used to heat the shop floor; in the foreground, 2 skips to collect block wood waste (skip on the left) and wood dust (skip on the right)



In March 2007, a company, which makes cat litter from wood waste, was selected. As from April 2007, this company has provided skips for the storage and collection of wood dust and particles, and wood waste is blown into these directly from the factory dust extraction system.

Annual Savings

Selling this material now

- generates an on-going income of £480 per annum
- avoids running the incinerator during the summer and reduces the amount of time the chipper is used to chip the large pieces of waste thereby reducing energy costs by £3,517.00, and
- reduces maintenance costs by reducing 'wear and tear' by £400.00

One-off capital costs of £1,100 were incurred for modifications to the dust handling plant.

Total on-going annual savings due to this initiative ALONE amount to $\underline{\pounds4,397}$.

<u>Testimonial</u>

Neil Bark, Managing Director of Central Joinery: "Groundwork and the RNC club have definitely been of great use to Central Joinery not only to save on electricity usage due to redirecting our waste stream and reducing our carbon footprint but also it keeps us as a company focused on looking for other initiatives to keep improving our environmental awareness from management level right through the organization".