



Joinery - saving on timber waste disposal and heating costs

A Timber Waste Management Case Study – Joinery Sector

The achievement

J Hodson & Sons has been trading for 50 years and is now predominantly a bespoke joinery business specialising in kitchens, windows and stairs. The company overcame a substantial problem that had been building up with their timber waste storage and disposal. Agreements with local farmers (taking wood chip) and investment in a wood fuelled boiler saved over £5,000/year on skip and waste timber storage costs. Installing the boiler also reduced heating costs by approximately £1,200/year and improved working practices and environmental health and safety.



Key management issues

- Obtaining clearance from local authority to operate a wood fuelled boiler in a residential area as regulations had to be satisfied and the impact on the local environment had to be considered
- Arranging for an individual member of staff to take on waste disposal responsibilities to maintain workplace cleanliness and proper boiler function
- Establishing the economic viability of investment in the boiler system and ensuring that savings would recover the initial cost.

Key benefits

- Large savings on the costs of conventional skip waste disposal and heating bills
- Environmentally friendly practices help to avoid landfill and build good relationships with the local community, developing new business
- Satisfying environmental, health & safety regulations and insurance conditions through tidy workplace focussed on boiler management.

Background

J Hodson & Sons began as a small cabinetmaker and furniture restoration business in 1953. During the 1960s the company grew and diversified to include joinery work, timber and DIY merchandising using good customer relations and strengths in “made-to-measure” quality and local pricing. Today, bespoke joinery constitutes up to 70% of the business. Wood waste became a real problem during the late 1980s following new legislation in 1985 restricting use of traditional stoves. Wood chip waste was well managed, but solid timber waste became a financial and logistical burden which had to be addressed. A new gas heating system also added to costs following removal of the stove. Installation of a wood fired boiler was the solution to both these problems and had other benefits in helping to meet health and safety/working environment practices.

The wood waste problem

Wood waste started to be a problem as J Hodson & Sons expanded operations to include a 4-5 man joinery workshop on a larger site. In 1985 legislation outlawing the use of a traditional wood burning stove used by the company compounded the problem. This left the company with a large excess of wood waste and forced a change to gas central heating. The additional costs of the wood waste (that could no longer be dealt with on site) gradually became higher year on year as the material built up in hired storage units and skip costs increased. Something had to be done and the management decided to invest in a wood fired boiler.

Dealing with wood chip waste

From the moment the company expanded into joinery work, the owners sought to cultivate good relationships with local farmers, stables and the public to develop an outlet for disposal of wood chip waste. Those requiring wood chip would collect the material for reuse as animal bedding, an environmentally sound alternative to landfill. This also provided a system of free removal from site negating any need for costly compacting or skip disposal. A bagging unit like those available from Wood Waste Control was installed with an extraction system to draw wood chip and dust from the workshop. These units automatically fill large 0.35 m³ plastic sacks which facilitate easy pick up and transport of the waste.

To continue environmentally sound practice the sacks were returned to Hodson and Sons for refill until they could no longer be reused. The goodwill developed with the public and local business through these practices also helped promote the company, leading to development of new business.



Solving the solid timber waste problem

Although wood chip waste was well managed there still remained the problem of solid timber waste, which began to build up in the late 1980s. It also became apparent that the gas central heating system installed was inappropriate for the industrial building the company used. After several years in operation the gas heating system was deemed to be inadequate for heating the workshop and was relatively expensive to run. Glyn Hodson (the company owner and managing director) began to look into an environmentally viable way to replace the old stove system that would meet current legislation.

A Talbott wood fired boiler proved to be the solution, burning wood at high temperatures that would satisfy emissions criteria. Despite being based in a built-up residential area, the company managed to work closely with local authorities to meet regulations. They had to build an extra extension to the flue and agreed not to operate the boiler in certain weather conditions. Through their work with the authorities the company was able to take advantage of a local development scheme and obtain a grant for 25% of the boiler cost.

Once the Talbott was installed with wood waste being burned to generate heat, there was no longer any need for gas heating - resulting in substantial savings. The cost of £200/month, for 6 months a year, totalling approximately £1,200 was an immediate benefit. At today's prices of £120 per skip (3 per month) the company would see £4,320 per annum saved in disposal costs. The storage Portacabin costing £80/month was also no longer required, saving a further £960 annually. With these potential savings totalling £6,480 per annum the £5,600 initial capital cost of the boiler would be repaid within one year and real bottom line savings would start to feed in to the business within this time period.

The benefits of installing the boiler were not merely financial but had an impact on the way the workshop was run. A system for managing wood waste in the workshop had to be developed focussing on monitoring the boiler to maintain temperatures and control emissions. A member of staff was selected as a waste marshal specifically dealing with wood waste, workplace cleanliness and the boiler. This resulted in greater levels of cleanliness in the work environment satisfying health and safety regulations and conditions of insurance for the business.



The author of this sheet is employed by TRADA Technology Ltd, managers for the project. The work was carried out under a contract jointly funded by the Timber Research and Development Association and the Secretary of State for Trade and Industry. This document is published with the consent of the Department of Trade and Industry, but the views expressed are not necessarily endorsed or accepted by the Department.

Project partners:

Timber Research and Development Association (TRADA)

Forest Products Research Centre (FPRC)

Construction Best Practice Programme (CBPP)

Trussed Rafter Association (TRA)

Fauna and Flora International

PPJ Joinery Ltd

ADW Joinery Ltd

British Woodworking Federation (BWF)

Project participants:

J Hodson & Sons



The askTRADA website makes TRADA's knowledge and experience available to everyone. Go to www.asktrada.co.uk to view.

askTRADA contains a huge resource of timber information which can be accessed at three levels:

All visitors can access the *Directory of Suppliers* of timber products and services, details of TRADA Technology *Services*, the online *Bookshop* and details of *Training courses* and *Events*.

Registering on the site provides access to *Technical Information* online. This comprises a *Library* of full text and illustrations from over 300 *TRADA Publications*, a *Timber Species* database of information on popular timbers, plus *Timber Product* pages and details of *Research*.

TRADA members have access to the full resources, including timber design *Software*, detail design *Drawings*, *NBS specifications* and *Business Information Sheets* and *timberSTATS* statistics. Only TRADA members' details are included in the Suppliers Directory and members also receive regular mailings of information and copies of publications.

Corporate members are companies that trade in or use wood as part of their everyday business activity. They include timber traders, manufacturing companies, suppliers to the industry. Professional members are individuals or organisations involved in the specification, procurement or use of timber and wood-based products. including clients, contractors, builders, engineers, architects, surveyors, local authorities, housing associations and educational establishments.

Whilst every effort is made to ensure the accuracy of the advice given, the company cannot accept liability for loss or damage arising from the use of the information supplied.

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form, by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the copyright owners.

© TRADA Technology Ltd 2004

TRADA Technology Ltd

Stocking Lane, Hughenden Valley, High Wycombe, Buckinghamshire HP14 4ND, UK

t +44 (0)1494 569600 f +44 (0)1494 565487 e information@trada.co.uk w www.trada.co.uk