

Giving recycled wood a new lease of life



D&R Henderson is the only particleboard manufacturer in Australia using large volumes of recycled timber. Thanks to their innovative cleaning tower, the company has created a 100% recycled product that meets Australian Standards.

Becoming a market leader

D&R Henderson is an independent manufacturer of softwood timber, particleboard and melamine laminated products. The company is located in Benalla in regional Victoria.

In April 2010 the company commissioned a cleaning tower capable of processing and consuming large volumes of recycled wood for use in particleboard. The cleaning tower is the only one of its kind in Australia making D&R Henderson a market leader in providing high quality 100% recycled particleboard products such as flooring and doors.

Choosing to invest in recycled timber processing

According to David Henderson, the company's Executive Director, it was primarily a strategic decision to invest in a cleaning tower. "We identified upcoming changes in the supply chain of traditional wood sources for particleboard manufacture so we installed the cleaning tower to combat these changes. The tower enables us to clean shredded but contaminated recycled wood waste so it can be used as an alternative wood source for particleboard."

Building the business case

The main objective was to develop a process that could deliver 2,000 tonnes per month of cleaned and usable recycled wood. Before investing, D&R Henderson wanted to be clear about how the changes would affect their business.

It was considered a high risk investment because recycled wood had not been used in Australia for this purpose; instead, it was mostly going to landfill. "Nobody knew the impact on the machinery, the product or how it would behave during the manufacturing process," explains David. "The full cost of the product was also difficult to calculate in advance".

"We knew that recycled wood is widely used as a source of fibre for particleboard in Europe and has been for decades," says David. "We visited a tradeshow in Germany and met with suppliers who arranged for us to visit factories using this technology. These visits were a very useful and important part of the due diligence exercise."

SNAPSHOT

ORGANISATION

D&R Henderson

PROJECT

Commissioning a cleaning tower to process and deliver cleaned and usable recycled wood.

OBJECTIVES

To provide an alternative source of wood fibre for particleboard and reduce wood to landfill.

STATUS

The tower was commissioned in April 2010 and has become a fully integrated part of the particleboard operation.

OUTCOMES

Since mid 2010, approximately 130,000 tonnes of recycled wood have been diverted from landfill to D&R Henderson. D&R Henderson is now Australia's only manufacturer of particleboard comprising 100% recycled wood waste.

CHALLENGES

Using recycled wood to developing an end product that meets all performance standards.

NEXT STEPS

Recycled wood volumes are now being increased to 2,500 tonnes per month.

The strategic risk identified in the traditional supply chain spurred the company to make a calculated decision to invest in the cleaning tower. "It turned out to be a good decision," adds David.

Meeting market standards

D&R Henderson have well established end markets for their products. The challenge in using recycled materials is maintaining an acceptable quality for the market.

"The volume of recycled wood used is limited by the capacity to produce an acceptable quality of cleaned recycled wood," explains David. "The Australian marketplace expects a very high quality standard which makes using recycled wood a real challenge".

After some trial and error, the company was able to overcome this issue, creating an end product that meets all relevant Australian Standards. "This product is recognised by the Green Building Council of Australia for green star rating purposes and is an extremely sustainable product," adds David.

Returns on investment in innovation

The cleaning tower processes approximately 2,000 tonnes of recycled wood per month. Since operations began in mid 2010, approximately 130,000 tonnes of recycled wood have been diverted from landfill to D&R Henderson. "It is fair to say it has paid for itself already," says David.

Not only does D&R Henderson now have access to an alternative source of wood fibre, it is also able to offer a recycling service to its customers by accepting their timber waste as an alternative to landfill. "This is seen as a real win-win," says David.

An environment conducive to growth

D&R Henderson is a major employer in Benalla and enjoys its regional location. "We're proud to be regionally located and find it works extremely well," says David. "We've been fortunate to watch both our business and Benalla grow over the last 30 years."

The company also appreciates the ongoing support of the Victorian Government, who provided a grant to help offset the decrease in the Australian dollar when purchasing the tower from Europe.

"Recycling is the future. Businesses must use sustainable resources to ensure their ongoing success."

David Henderson, Executive Director, D&R Henderson

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