



Brightwater

PROJECT REPORT

Shavings Storage

McAlpines Ltd, Rangiora, New Zealand
2002



TURNKEY SOLUTION PROVIDERS TO INDUSTRY

CONCEPT



DESIGN



MANUFACTURE



INSTALL



COMMISSION



OPERATE



The Situation

McAlpines were already dumping wood shavings and the new planer mill they had purchased would increase this waste. It was decided to use the shavings as bio-fuel in the energy plant, in turn reducing the consumption of coal on site.

The Solution

In association with Windsor Engineering Group, who supplied the shavings extraction and conveying system, BEL offered a 275 m³ storage silo complete with discharge screw. This would store the shavings and supply them as required to the boiler fuel feed system.

BEL were required to complete the project from concept to completion in 12 weeks. This target was met with our design and fabrication team having the silo shell sections and discharge components ready for transport to site on schedule. The BEL installation crew had the silo erected in 7 days. The complete system was installed and commissioned within the required time frame.

The silo is performing very well and has dramatically reduced the coal consumption at the McAlpine site as well as providing an efficient and totally contained storage system. The new facility has also eliminated a significant disposal problem.

The Benefits

- Reduction in waste
- Reduction in coal usage
- Accurate and controlled discharge
- Weather and dust proof storage of wood waste fuel
- Fully automatic, reducing on-site labour
- Low maintenance componentry,
- Turnkey construction – design, supply, interface, build and commission.

The Specifications

Material	Dry planer shavings (milled)
Density	150-180 kg / m ³
Method of delivery	Pneumatic blowline from filter house
Silo capacity	275m ³
Silo diameter	6.5m
Silo height	15m
Discharge rate	1-5 m ³ / hr
Discharge method	Sliding frame / Discharge screw



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