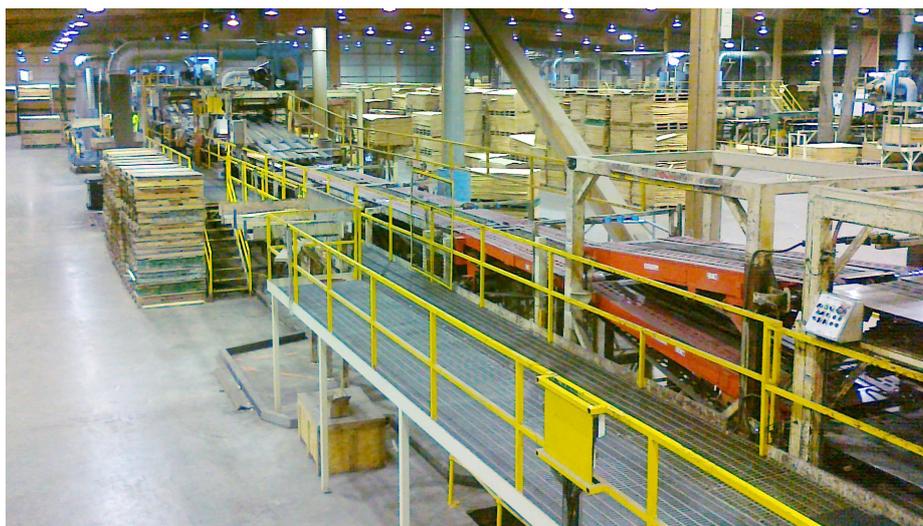


ARTICLE

ABB providing power protection to Australasia's leading forest products company



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01 Carter Holt Harvey's Active Voltage Conditioner (AVC) protected production line
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02 Carter Holt Harvey's LVL Mill in Marsden Point

A uniquely compact and energy efficient ABB power quality solution is protecting one of the Australasia's leading forest products company from potentially destructive effects of power surges and voltage sags.

LVL is a step-by-step process and if one production line fails, the whole process can be delayed causing production loss. This was evident for Carter Holt Harvey (CHH), and the need to install ABB's Active Voltage Conditioner (AVC) was necessary to prevent future voltage disturbances from occurring.

Background

The CHH Wood products NZ business group manufactures and markets a full range of wood based building products, including timber, plywood, laminated veneer lumber (LVL), particleboard, and a range of interior decorative products, supplied from nine major manufacturing operations spread throughout New Zealand.

CHH's plant in Marsden Point manufactures LVL and uses industrial microwave generators during the production process. The microwave units heat the bonding agent (glue) used to hold the

sheets of thin wood together (for plywood manufacture) so the glue cures faster. This allows the factory to make more plywood than if they waited for the natural cure time of the glue. Voltage fluctuations were causing the microwave generators to trip which was halting the production line, causing production loss and requiring costly replacement of parts.

Finding the right solution

CHH had specific requirements that were product reliability, increased yield, lower running costs, and increased machine centre uptime. To achieve this, they realised investment in a power protection system for the plant would be required.

Therefore, ABB's Active Voltage Conditioner (AVC) was installed to condition the incoming power to the microwave units.

External elements

With Northland's power (including the CHH plant) being supplied through Auckland, the distance involved made the power feed vulnerable to external elements, such as, weather, tree branches, animals and other industrial sites powered by the same line. ABB's trusted global

experience and proven applications in power protection helped mitigate such external elements by providing continuous online regulation and correction of voltage fluctuations.

Applying the technology

Currently the AVC protects three microwave generators on one production line with a total rating of 300 kW. Since the PCS100 AVC has been installed, there has been a reduction of loss of magnetrons which, has resulted in a considerable decrease in plant downtime.



Customer satisfaction

Mark Stackpole, Carter Holt Harvey's Project Manager stated, "For the four months preceding the installation of the AVC, eight magnetrons were replaced for various reasons. In the four months following the installation, only one magnetron has been replaced and this was probably due to the magnetron reaching end of its life."

This is the first time in New Zealand that ABB's PCS100 AVC has protected industrial microwaves of this size, the largest system to date in the lumber industry, and a first worldwide for ABB AVC for an adhesive curing process.

To find out more about ABB's power protection solutions:

Web: www.abb.com/ups

Email: powerconditioning@abb.com

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Additional information

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