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World's Largest Sawmill Cuts Sawbox Maintenance Time

Canfor Corp. has reduced maintenance time at its Houston, BC sawmill by using combination plug/receptacle and disconnect switches that allow workers to safely and quickly make and break electrical connections that provide power to sawbox motors. Since the company installed the Meltric DECONTACTOR™ Series switch-rated plugs and receptacles, it no longer needs to disconnect and then re-wire the multiple motors when performing sawbox maintenance.

Canfor's Houston operation, the largest sawmill in the world, recently completed a major reconfiguration of the company's sawmill at the northwestern BC location that increased its capacity from 450 million board feet a year to 600 million. Before the expansion, the mill was already one of North America's largest and most efficient sawmills, having grown steadily since it opened on the site in 1968. The former Northwood Pulp & Timber facility was acquired by Canfor in 1999.

Focus on Efficiency and Productivity

With the recent \$26.4 million upgrade, Canfor has further sharpened its focus on sustaining profitability by operating continuously in a high volume/low cost, highly efficient mode. Attention to detail is meticulous, extending from production operations through maintenance.

One such area is the maintenance of sawboxes. Typically, these are disassembled for cleaning and routine mechanical maintenance about twice a month. On one typical Optimil unit, it was necessary for an electrician to disconnect the wiring for 12 motors so the box could be opened. After maintenance was completed, the electrician had to re-wire the 7-1/2 hp, 575 volt motors. Electrical Supervisor Kevin Trottier says this usually took about three hours of an electrician's time, which could have been spent on more productive activities. Trottier explains, "We have a relatively small electrical crew for the size of this operation, so we welcome anything we can do to eliminate three hours of unnecessary work."

In addition to freeing up electricians, the ability to make a fast changeover helps reduce downtime and thereby boost productivity, one of the key objectives at the mill.



Optimil sawbox at Canfor's Houston, BC mill has 12 motors that must be removed frequently to facilitate routine maintenance. Meltric's switch rated Decontactors (in blue) make the job faster and easier than rewiring each time.



Closeup shows typical motors with Meltric Decontactors in place. Dead-front construction keeps workers safe, while plug-and-play simplicity speeds motor removal and reinstallation.

Big Time Savings

To reduce the time required for the procedure, Canfor installed Meltric DECONTACTOR™ Series switch-rated plugs and receptacles on each of the Optimil's sawbox motors. The Decontactors are CSA and UL switch-rated and incorporate spring-loaded butt-style contacts to provide a secure connection over thousands of operations. Their solid silver-nickel contacts withstand wear, corrosion, oxidation and other factors that contribute to premature failure of the brass pin and sleeve-type devices that are sometimes used in similar applications.

The Decontactors helped Canfor to significantly reduce motor change-out downtime by combining plug and play simplicity with the safety of a dead-front switch. Because the motors are pre-wired with a plug or inlet, they are easy to connect simply by plugging them in. The DSN models used at Canfor have a 30 amp rating and will handle motors up to 15 hp. DSN casings are made of fiberglass reinforced thermoplastic polyester, which provides resistance to shock, chemicals and UV rays. Other DECONTACTOR plugs and receptacles are available for applications up to 200 amps or 60 hp.

Trottier reports that, since installing the Decontactors close to two years ago, the time savings have been dramatic. "Instead of a three-hour job, it's down to a matter of minutes," he says. "A millwright can disconnect his own motors, take the top of the box off, do the maintenance, put it back together and reconnect the motors without waiting for an electrician."

Trottier is happy that he found Meltric. He had been searching for an alternative to low-voltage external pilot circuits, both in terms of cost and safety. "With all the sawdust in an operation like this, there's nothing but headaches with using a low-voltage pilot circuit to drop out a high-voltage contactor."

Looking Ahead

Results have been so impressive that Canfor is looking to convert other equipment as time and budgets permit. One candidate heading up the list is a large gang saw that converts cants to dimensional lumber at a high rate. Trottier says it processes 12-inch cants and has eight motors on the infeed and another eight on the outfeed.

Other applications also offer potential cost and labor savings for the company. Trottier notes, "Where there are welders or small motors in an area, we can use the Meltric plugs and receptacles in place of local disconnects."

About Canfor:

Canfor Corporation is a leading Canadian integrated forest products company based in Vancouver, British Columbia, with interests in over 33 facilities in British Columbia, Alberta, Quebec, Washington State and North and South Carolina. Canfor has an annual production capability of approximately 5.2 billion board feet of lumber, 450 million square feet of plywood, and 1 billion square feet of OSB.