Wall Panel Sheathing: How to Optimize Material and Labor

By the ROGworx Team

Let's face it, nobody loves sheathing walls panels. Sheathing is heavy, awkward to handle, slows down your production line, generates a lot of waste, and depending on how you cut it, it can create a lot of air-born dust that can make your working environment unpleasant. However, it does stay true to the component industry's objective of reducing material and labor in the field.

So how do you maximize your wall panel sheathing efforts? As with most things in the component industry, the key is automation and software — and this is where the SpeedWorx Automated Sheathing Saw excels.

The SpeedWorx Sheathing Saw is a collaboration between Safety Speed Manufacturing and ROGworx Automation. Safety Speed Manufacturing has been in the business of building vertical panel saws for over 70 years. With more than 70,000 vertical panel saws in service, Safety Speed knows the vertical panel saw business. Chances are, you may already have one in your facility.

ROGworx Automation was founded on the principle of Simple Automation. While there are several automated solutions available in the industry today, many involve complex systems that require highly trained personnel to operate and maintain. This can be a roadblock for many small and medium-sized operations. ROGworx strives to create simple automation that is easy to operate and simple to maintain.



Together, Safety Speed and ROGworx created the SpeedWorx Sheathing Saw to be just that: simple to operate and easy to maintain, while also generating a very beneficial return on investment. We started with the proven mechanical design of the Safety Speed 7400, added a precise and accurate automation package, and designed an easy-to-use software interface to boot.

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Industry-Proven Equipment

The 7400 is Safety Speed's industry-proven heavy-duty panel saw. It comes with a 3 HP motor which has been beefed up to a three-phase version for the SpeedWorx. It is also now driven by an AC inverter to provide better control and monitoring.

The frame has been lengthened to provide additional support for the drive mechanism and inbound and outbound material. The crosscut mechanism has been strengthened as well to accommodate the increased weight of the saw mechanism and increased duty cycle.

Smart and Simple Automation

The SpeedWorx Saw essentially has 4 automated axes of movement — one axis each for the ripping and crosscut motions, another axis to rotate the saw between the rip and crosscut directions, and a fourth axis to move the saw in and out of the cutting position. This last axis provides a safety feature unique to the SpeedWorx saw.



The saw blade is only exposed while the system is cutting material. The rest of the time, it is safely tucked up inside the saw box. Each axis of movement simply replicates the process that vertical panel saw users have been doing manually for decades. This is the "simple" part of the automation, and it's easy to understand and easy to maintain.

Where the "smart" part of the automation comes into play is when the SpeedWorx combines those simple motions to create parts that other panel and table saws can't create. By coordinating the rip, crosscut, and rotation axes, the SpeedWorx saw is able to cut angled pieces for rake walls. That's right, with the SpeedWorx saw, you can now precut the sheathing for your special off-line walls too!



Ease of Use

One of the design criteria for the SpeedWorx saw was that it had to be easy to use. This was achieved through the use of a simple but powerful control application. In the automated cutting mode, the user is presented with a list of parts that has been imported from your preferred design application utilizing the EHX, WBX, BVX, or CSV import formats.

The operator can then select parts in whatever order they want and add them to a sheet of raw material. As the user adds the parts, the system analyzes the available space on the raw material and filters the list accordingly, so the operator knows what pieces can still fit on the sheet. Easy!

The true magic of the system, however, is the "Auto-Fill" feature of the software. With Auto-Fill, the operator clicks one button and the system begins looking through the list of required parts and fills the raw sheet automatically utilizing as much material as possible. There is even a "Look Ahead" feature which lets the operator define how far to look ahead in the list for available parts. This Look Ahead feature can be adjusted to look ahead by pieces, panels, bundle layers, and even bundles, all on the fly. This allows the operator to balance the give and take between material utilization and the management of cut pieces on the backside of the saw.



Part Labeling

The SpeedWorx is also available with a part labeling printer. The printer marks each piece as they are cut, allowing the operator to quickly organize the pieces as they come off the saw.

The labeling also assists the assemblers in placing the parts on the wall once they make it to the assembly line. By default, the printer marks both the panel label and part ID. There is also a setting to include the bundle name if required.

Dust Control

Dust Control

A lot of thought and design has been put into the dust control system of the SpeedWorx saw. The sawing chamber is covered on the bottom, front, and sides. The top remains open to provide a flow of air down and toward the back where it is greeted by two 4" ducts to be connected to the vacuum system of your choosing. A minimum 3 HP system is recommended. The system does a great job of minimizing the amount of air-born dust, and it even works well with gypsum.



Are Ready to Optimize Your Material and Labor?

The SpeedWorx Automated Sheathing Saw can play a valuable role in your wall panel sheathing process. SpeedWorx helps increase production and minimize sheathing waste. It also allows you to get the job done with fewer staff members. SpeedWorx will create efficiencies you didn't even know were possible. Looking for a great ROI? Look no further than the SpeedWorx.

If you'll be at BCMC in Omaha, please stop by and see us in booths 1001 and 1002. On display, we'll also have our Badger EWP system for cutting/routing any brand of EWP product.

If you would like a personalized demo on how a SpeedWorx saw would benefit you, please reach out to us. Drop us an email at Sales@ROGworx.com or give us a call at 833-ROG-WORX. We love talking shop!

