

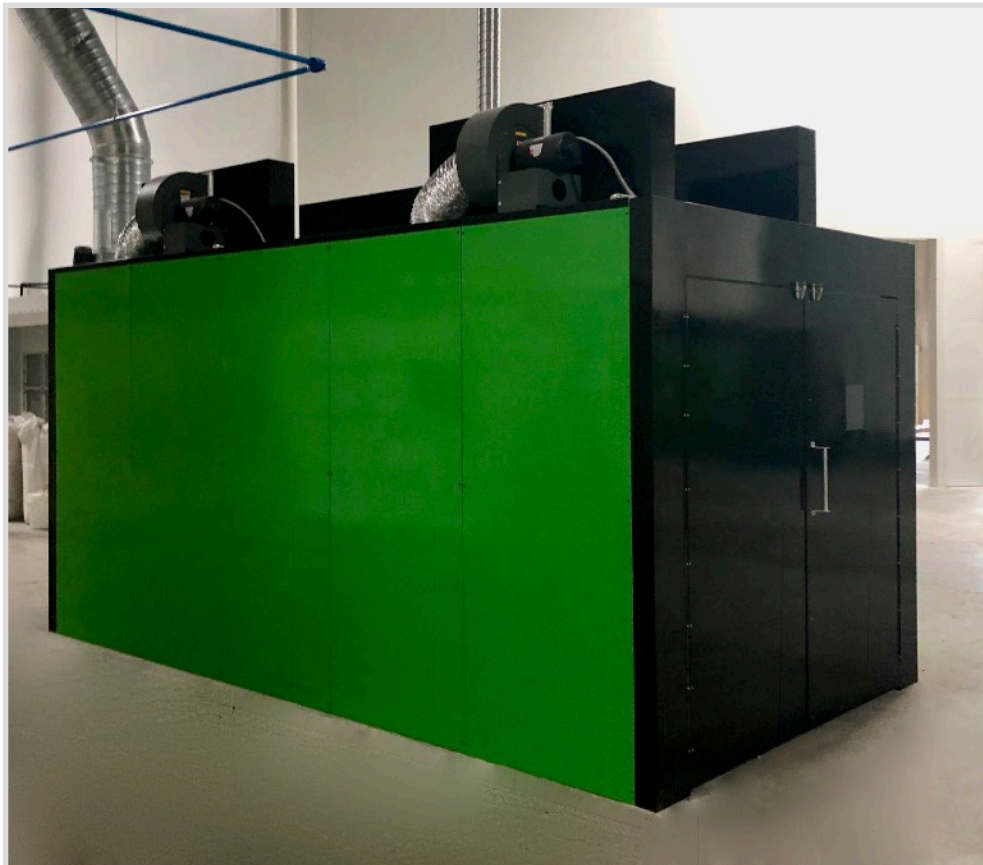
Halogen batch tunnel drastically reduces finishing time for W.L. Rubottom cabinets

WOODWORKING NETWORK

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W.L. Rubottom installed a halogen-based finishing tunnel from PrimeHeat and reduced **drying time to 10 minutes**.



W.L. Rubottom, located in Ventura, California, has been in business since 1949, making custom cabinets for both homeowners and builders in Southern California. The production-level shop can produce 100 cabinets a day or more, depending on the number of homes it's working on at a given time.

With that volume, it is essential to have efficient production flow throughout the shop. Finishing is an area of manufacturing often susceptible to bottlenecks for many plants. Jay McCoy, president of W.L. Rubottom, says this was a concern for his company as well because of the amount of time it took to air dry cabinet parts, sand and then do the next coat of paint that needed to air dry.

This method wasn't always the company's practice when it came to finishing. In the 1990s the company invested in a flat line system due in part to the environmental regulations from the EPA.

"We spent a lot of money and had a flat line system with gas powered tunnels. It was all conveyor based," McCoy says. "It had multiple stations so you'd spray it, it'd go through the tunnel, then you'd spray the other side, it'd go through the tunnel, with sanding in between. A big elaborate system. It was fast, but it was resource intensive."

Although this system worked well for the company's needs at the time, it was a huge draw on resources including manpower, utilities and space – the finishing line took up an entire 19,000 square-foot building.

So, when the recession hit in 2008, W.L. Rubottom, like many other companies in the industry, had to make adjustments to survive. The company closed and dismantled the flat line system and rented the building out to three different tenants, bringing in much needed income.

The finish shop was then transferred and curtained off in its second 20,000-square foot building, which contained cutting and milling operations, assembly and shipping.

"But that brought a lot of challenges, McCoy acknowledges. "From that point, we went from a conveyor-based system to hand moving pieces. With frameless cabinets, you can do that - it's smaller pieces, not big frames, typically, so you're able to do it. You can finish the piece and then assemble the cabinets but it's a lot of hand movement. Which is negative in terms of the amount of labor required but in terms of space it's efficient."

This process was also a challenge in the amount of time it took for each piece to dry. “We were air drying everything,” he adds. “Once we consolidated or downsized or whatever adjective you want to use, we were finishing parts, filling up our paint shop waiting for the blowers to dry it over time which took hours.”

Finding a solution

Having been one of the first companies in Southern California in the 1990s to build its own pre-finish plant, W.L. Rubottom was not averse to strategically investing in technology.

“I went and bought a tunnel, it's called a batch oven, through Prime Heat,” McCoy says. “It's a halogen-based tunnel and it dries the paint in like 10 minutes. Totally cures and since it's a water-based finish, it cures it from the wood up. It has a multi-step process. It uses low temperature — it lowers and then it has different settings and each setting you can time.”



He did a great deal of research on his own but McCoy says he also worked with **Ty Crowder** of Sherwin-Williams (Now owner of **Total Finishing Solutions, LLC.**) as well as Prime Heat to develop the type of unit he would need to not only decrease drying time but to maximize space as well.



“I didn't see any other way to do it and not kill us in terms of resource issues,” he adds. “The halogen lights, the halogen batch tunnel is cool because it has a **laser that detects the temperature of the material.**”

The halogen tunnel works in phases that can accommodate the various requirements of the paints and stains used. The lights flash on and off to keep the temperature setting consistent.

“The gas based tunnels had to fire all the time, which used a ton of resources,” McCoy notes. “Now, the halogen lights turn off when they aren't necessary. They're constantly going on and off and on and off just to keep the temperature steady at the level you set.”

The **Prime Heat halogen tunnel works well with water-based finishes.** Because the tunnels are modular - they are available in 3-foot increments – plants have a great deal of flexibility.

“The smallest one you can buy, I believe is 9 feet,” McCoy says. “You can get 9 feet, 12, feet, 18 feet, 21 feet and you can add to it as well. If you say I've got a nine-footer, it's not big enough, I need three more feet, you just buy three more feet.”

Once they had decided on the best system for W.L. Rubottom, McCoy says it took approximately two months to build and then about one week to install. Once installed it was put in use right away, he says, but there was a slight learning curve that required some experimentation. He and the finish line superintendent worked together to make adjustments.

“It took us a couple of weeks to figure it out,” he says. “If you change paint suppliers or materials, there's always tweaking. We just tweaked it a little bit last week, added five or 10 degrees on the last phase of the paint. We basically thought it would cure a little bit better if we got it up a little bit higher on that last phase. If you do it too high, too fast you can have bubbling or blistering. You have to do a steady increase.”

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