

# Scrap from panel saws is conveyed under production floor to grinder

## the daily grind

By Brooke Baldwin Wisdom

Cabinet manufacturing giant KraftMaid Cabinetry, Inc. in Middlefield, Ohio, engineered a material handling solution that has not only resulted in labor savings, but has also increased production efficiency and proved to be profitable.



Scrap material from its panel saws was filling up scrap hoppers at KraftMaid, and drivers were hauling it out of the production facility. "This daily process involved multiple trips to each of the saws," says Don Cox, KraftMaid's vice president of operations. "We had forklifts running in and around our equipment and on occasion they would hit it. We wanted to be able to get rid of the scrap from our saws without having to physically remove it. Our solution was to buy grinders that we could install at each of the individual saws. This enabled the operators to take the scrap material from the saw and feed it right into the grinder."

Today, KraftMaid's grinder arsenal is made up of Weima America's Tiger 600 horizontal grinders and Weima America's Leopard 600 horizontal grinders. The Tiger 600 features a V-rotor cutting system for a precise cutting action. The knives are set into a pocket, which protects three of the four corners of the knife. Therefore, the knives can be rotated up to four times before having to be replaced. The bolt heads are recessed into the knife holder to eliminate wear and tear.

The Weima horizontal machines are also equipped with a modular vibrating conveyor system. This means that the conveyor length can easily be modified if scrap size changes in the future or if the plant layout or location cre-



*Weima's Tiger 600 Horizontal Grinder*

ates new needs.

An additional important feature on the Tiger horizontal grinders is the replaceable crossbars on the infeed system. The purpose of the crossbars is to help feed the material into the rotor. By having these crossbars replaceable, an easy process for part replacement and a less costly solution are created.

The Leopard 600 horizontal grinder has a unique track-feeding system, which is similar to the tracks on a tank. The tracks run on the top and bottom to operate as the machine's loading system. The benefit is that the tracks can grab whole stacks of material at one time no matter what the scrap size or configuration. This machine also incorporates the V-rotor system. A high-grinding capacity is created in a relatively small sized machine.

Engineering and implementing a grinding system has resulted in an efficient material handling operation for KraftMaid. "Our first challenge was to figure out how we were going to feed the grinders," says Cox. "What we ended up doing was to use a shaker conveyor that actually feeds the long strips directly into the grinder. We didn't want to have a noise issue on the production floor so we dug pits next to the saws and put them down in the pits with sound enclosures over the top. The operator takes the strips and actually drops them down a chute that goes into the shaker conveyor, which then feeds the material directly into the grinder. From the grinder, the ground-up material then

goes up into our dust collection system and proceeds directly into a silo.”

Cox says the system works just as KraftMaid had planned on it working. “The benefits are of course the labor savings and the increased efficiency of not having to manually remove the material from the area — the material handling part of it,” he says. “The drivers were able to be reassigned to areas where they could be more productive. Additionally, now with everything being ground up and going directly into the silo, we are able to sell our waste rather than have it landfilled.”

KraftMaid has been so pleased with the success of the system that it has applied Weima grinders in multiple areas of its operation, says Cox. “We’ve been utilizing this system for awhile now and have gotten to the point where we have installed grinders on all of our panel saws,” says Cox. “We actually install one grinder for every two saws and have about 12 installed now.”

KraftMaid has ordered two new grinders from Weima America – the WL25 Super Jumbo and the WL 15 models.



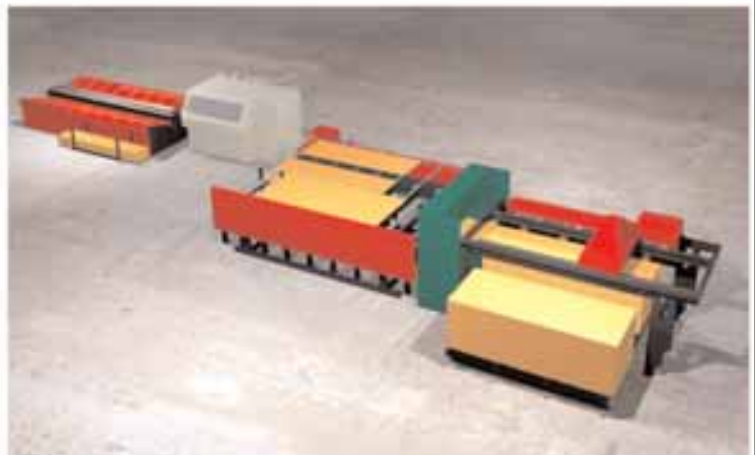
Weima’s WL25 Super Jumbo

The WL25 Super Jumbo unit is designed to be used as a centralized grinder. An important feature on this machine is the dual hydraulic drive that allows adjustable rotor speed, which is not possible on an electro-mechanical drive. The hydraulic drive’s ability to adjust the rotor speed for different materials results in a safe system for use as a centralized system, which is typically the hardest to keep free of contaminates. The WL25 also incorporates the V-rotor system, but has 60 x 60 mm cutters versus the typical 40 x 40 mm knives. The machine is called a Super Jumbo based on its rotor size of 23.6” or 600 mm.

The WL 15 is a smaller version of the WL 25 Super Jumbo, but has a standard electro-mechanical drive. Features are similar to that of the Super Jumbo, but the machine has a standard 14.5” (368 mm) rotor and 40 x 40 knives. This machine incorporates the adjustable counter knives, four-sided serrated ram and the hydraulic lift-up screen. *For more information, circle: #134 for Weima on the Reader Service Card.*



From a simple gang-rip infeed fence to a completely automated, 500 feet per minute, MDF ripping and moulding line, WoodStorm has affordable, quality products to help make your ripping & moulding operation more profitable. Whether it’s reduced payroll or increased throughput, for less than you pay one man, our products immediately make you money. WoodStorm. Shape your future today!



**WoodStorm**  
AUTOMATION

MATERIAL HANDLING FOR THE WOODWORK INDUSTRY



WoodStorm Automation - 1230 Blue Spruce Dr., Suite 5-Ft. Collins, CO 80524  
Phone - 970-493-5457 - Fax 970-221-3981 - e-mail ken@woodstorm.com  
www.woodstorm.com

Circle 243 on Reader Service Card