

He Converts Big Bales Into 21-Bale Bundles Of Small Bales

By Jim Ruen, Contributing Editor

Rodney Boll can turn big square bales into small bales at a rate of 300 to 500 an hour and just as quickly, turn them back into a 21-bale pack for shipping. He even captures chaff and returns it to the bales. The system solves a labor problem while still producing the small bales of hay that the market wants.

"We sell small bales, but there is a lack of labor to handle them," explains Boll. "We custom-bale for other farmers in large square bales. With the rebaling system, we can bale our hay in big square bales, get them off the field quickly, and then convert them to small bales when we have the time."

Boll has been rebaling his big squares for about 6 years, ever since he first bought a Bale Destroyer (Vol. 37, No. 3). Since then he has worked with inventor Levi Stoltzfus as it has been refined and renamed from Bale Destroyer to Bale Destructor and, most recently, Bale Converter.

The concept has worked so well for Boll that he has 2 rebaling centers in barns on the farm. When one barn burned down recently, he rebuilt with rebaling in mind.

"We built a 60 by 144-ft. barn with large overhead doors to the sides of the gabled ends for a drive-through and a door to one side that leads to a loading dock for trailers," says Boll. "Most of the barn is hay and straw storage with the bale conversion system in one corner."

Building from scratch allowed Boll to design a labor-saving - and even chaff-saving system - that includes 90 ft. of in-floor, 11-in. augers covered by steel grill. The V-shaped auger channels are 42-in. wide at the top and are laid out in a U-shape. The Bale Converter is on the right side, the Massey Ferguson 1840 baler is in the center of the U, and the Bale Baron 21 Pack (Vol. 39, No. 2) is on the left side.

Boll's design allows the material to automatically feed through the system. No labor is involved from the time the large square bale is set down to be shredded until the package of 21 small bales is removed at the other end. All 3 in-floor augers feed a vertical auger that sends the chaff onto the baler feeder bed.



Boll converts big square bales into small bales, which are then compressed into 21-bale packs for shipping. U-shaped setup includes Bale Converter at right, baler at center, and Bale Baron 21-Pack at left.

"Setting it up in a U-shape allows one person to control the equipment from the center of the action," says Boll. "It saves a lot of walking while you're watching to make sure there is no problem."

While a tractor powers the baler, the Bale Converter and the Bale Baron run on hydraulics provided by two 25 gpm pumps. The pumps in turn are powered by two 40 hp., 3-phase electric motors. Boll relies on 2 variable frequency drives to modify single-phase power to drive the motors.

Push button switches on the control panel start and stop the motors, while toggle switches to the right control 12-volt power. The Bale Converter has a 12-volt delay that pauses the in-feed conveyor.

"When the hopper is full of crop, we can push a button to start a timer that stops the conveyor for a preset amount of time, usually about 40 sec.," explains Boll. "There is a switch to supply the control box with power and a switch to supply power to the fans on the knoter."

Hydraulic fluid is channeled through steel tubing from the pumps to hoses that drop down to the Bale Converter and the Bale Baron. Return oil goes through a cooler mounted on the wall of the building.

"It took 3 months to get it all set up, but it works well, and we have virtually zero waste," says Boll. "We can handle 15 to 20



Control panel is located in center of U near baler (left). Bale Converter and Bale Baron operate on hydraulic pumps powered by two 3-phase electric motors

large square bales an hour."

The speed of rebaling depends largely on the type of material in the large bale. The finer the material, the faster the system can run. The control board offers push-button stop and start for all 3 components.

"The one change that we will make at some point is to increase the size of the grates," says Boll. "We sized them to ensure a foot wouldn't get caught in them, but the openings are a little too small for the chaff to flow through."

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System includes 90 ft. of in-floor augers covered by steel grills. This one feeds chaff from Bale Converter to baler.

App Shows School Bus Location In Real Time

Imagine looking at a phone app to see exactly where your children's school bus is - especially on those cold, snowy mornings when you don't want children standing outside for a long time.

The app, Here Comes the Bus, is already available to more than 1 million people who live in school districts that pay for Synovia Solutions services.

About 1,000 school districts already use the service. Besides routing, districts can track speeding, dangerous driving and excessive idling to create a safer and less expensive transportation system.

"In 2014, with all that data and the growth of the mobile technology industry, we saw a way to make an app to show the location of a school bus in real time," Mitchell says.

The Here Comes the Bus app is free to anyone in school districts that have purchased the software. Users can check the app any time to look at a map and see if a bus is on time or late due to weather or traffic.

So far, the service has been only available to customers who purchase the company's routing services, Mitchell says. In rural areas, districts usually do their own routing and don't need that service.

"We are developing a product that doesn't need routing software and trying to work it out to have before the next school year," he notes.

"Once parents have it, they don't want to go without it. With 4.6 stars in the app store and more than 40,000 reviews over four years, it's fairly well proven in the market," Mitchell says.

To be notified when the app is available, Mitchell suggests people tell their school districts to contact Synovia about cost and how to get started.

Contact: FARM SHOW Followup, Synovia Solutions, 9330 Priority Way, Indianapolis, Ind. 46240 (ph 877 796-6842; www.synoviasolutions.com; support@synoviasolutions.com).

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