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MATERIAL HANDLING

TRANSPORT SHEET
QUICKLY WITHOUT
SACRIFICING FINISH

WATERJET

JOB SHOP'S ABILITY
TO NOTCH AND SPLIT
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PIPE PAYS OFF

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PRISTINE POSITIONING

Reinvesting in itself, one company finds value in bundle splitting solution

BY GRETCHEN SALOIS

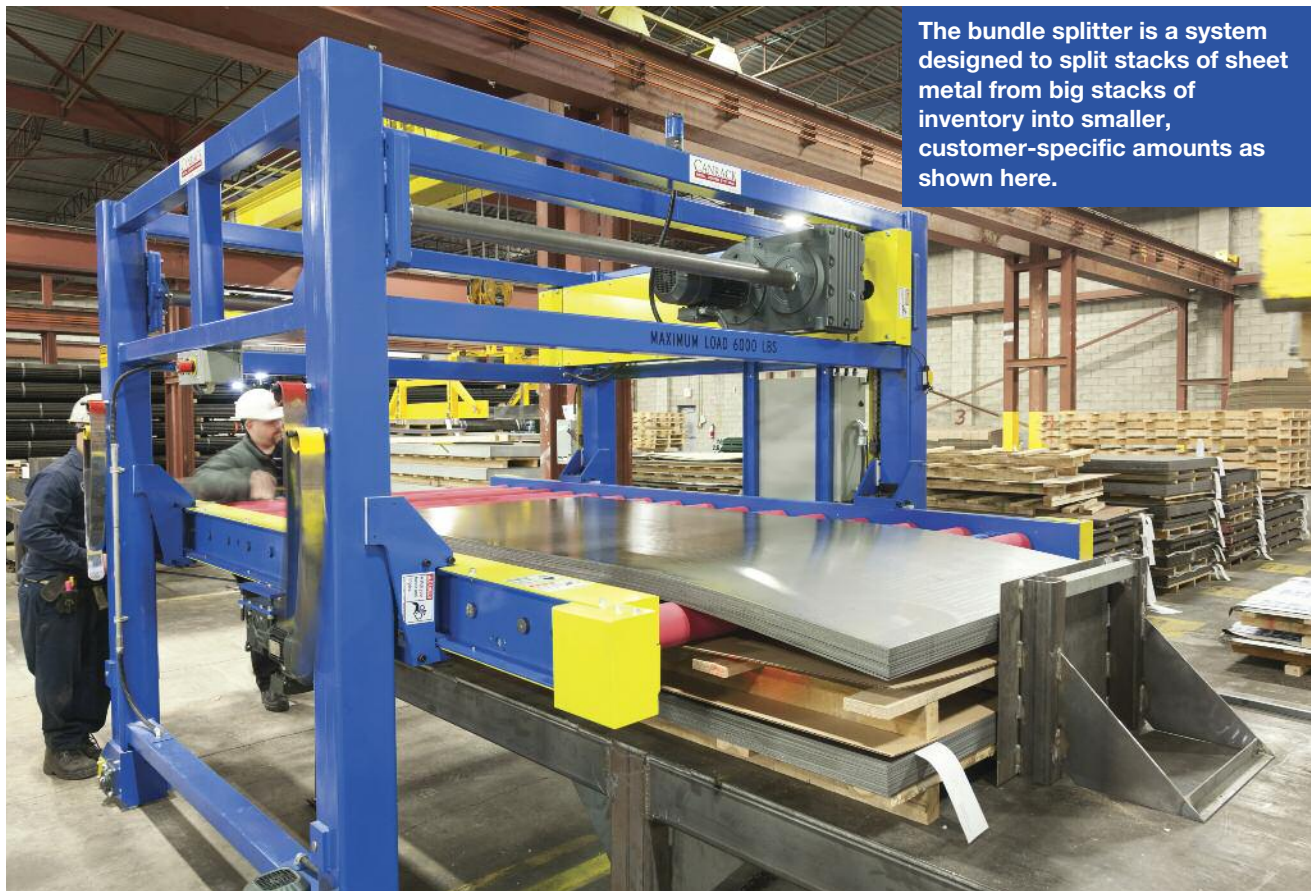
It's impossible to get the white-glove treatment when sorting through metal sheet using traditional manually operated cranes. When metal rubs against metal, scuffs and scratches inevitably result, damaging the plates scraped by the

sheet lift. To combat this costly consequence, Brampton, Ontario-based Del Metals sought a solution that would not damage material while making the company's overall operations more efficient.

Del Metals is a general lines service center that stocks a broad product range including fence pipe, tested pipe

(A53/A795) and seamless pipe; a full range of light bar, channel; tubing and structural shapes/sections; and a full range of hot rolled, cold rolled, galvanized and galvaneal products. The company serves many facets of the manufacturing sector including construction, fabrication, truck trailer fabrication, electrical enclosures, OEMs, off-highway equipment, as well as mining and agricultural industries. The company found its current material handling methods were consistently damaging its sheet product.

A privately owned company, Del Metals is a member of the North American Steel Alliance, a connection that introduced Del Metals to fellow member, Canrack Storage Solutions Inc., Mississauga, Ontario. "We found out about Canrack through our NASA membership as well as the fact that a lot of our friends had invested in this bun-





Picking order: All the rollers on the bundle splitter are polyurethane coated. This prevents damage to the sheet and gives enough grip to process the order.

“...the splitting technology,” says Paul LeGendre, vice president of sales and procurement at Del Metals. “In today’s business environment you need two things to succeed: the right people and the right equipment to efficiently process, package and ship customer orders. We looked around at the North American marketplace and found relative to processing and packaging bundles, Canrack had the best solution and proven track record.”

Del Metals built its business with a strong focus on reinvesting in and embracing new technology. This is reflected in the ½-inch by 72-inch stretcher leveler investment made five years ago that made Del Metals one of the first companies in North America to have this technology, according to the company. The company also invested in a new light gauge tension leveled cut to length line that is capable of running both ferrous and nonferrous products from 30 gauge through 10 gauge by 72 inches wide. The Canrack bundle splitter is its most recent investment, purchased to remedy the damage its current handling methods were making to light gauge sheet products.

Practical process

After investing millions, Del Metals found its ability to package and meet delivery requirements was inadequate. “We looked at how we processed sheet and how we handled material multiple times and knew we had to make a change. That’s where Canrack came in,” LeGendre says. “With so many pieces being produced on our new line, many top and bottom pieces were getting damaged due to frequent handling by crane. Now, instead of moving around four or five piles, Canrack’s bundle splitter allows us to store and move material in one pile, splitting material into incremental piles when needed.

Since getting the bundle splitter, our reliance on our cranes has been reduced and none of our piles have been damaged,” he continues. “This will only get better the more volume we add as the business grows.”

Del Metals began running the bundle



The operator inserts Canrack’s pick and split wedges to indicate where to separate the stack of sheet metal.

splitter in late October and is already seeing a 10 to 15 percent improvement in its day-to-day operations. “It’s been great—an easy learning curve—and our operators learned what they needed to know in hours as opposed to some equipment/systems, which can take weeks or even years for them to feel fully comfortable working,” LeGendre says.

The bundle splitter is a system designed to split stacks of sheet metal from big stacks of inventory into smaller, customer-specific amounts. “There’s only a few ways you can do this,” says Jason Clark, senior engineer and partner at Canrack. “Most ways are slow and damage sheet and are basically a manual process—either using a crane, forklift truck, vacuum lifter or good old-fashioned slinging steel by hand.” Clark also notes there’s always the risk of worker injury when moving material by hand.

Canrack has been dreaming up material handling solutions for 33 years. “One of our owners has a strong conveyor background and he saw the need to improve sheet order filling,” Clark says. “What we ended up with was a bundle splitter that can be managed by a 100-pound employee that has no order filling experience to an experienced order picker—anyone can jump into the machine. If they can count sheet and push buttons, they can take an order up to 6,000 pounds.”

Canrack’s bundle splitter is designed for any metal service center handling sheet orders—anywhere from 20 all the way up to 120 sheets in a shift. In the highest volume setup, one operator is a dedicated side-loader/fork truck operator who should average 100 trips in a standard shift based on a five-minute cycle. The second operator is the splitter remote operator, responsible for performing the split, which takes two minutes. This operator can also work with a third operator when placing an empty customer skid and dressing the bottom of the skid with paper or other materials. Operator three is the package operator, responsible for properly packing the customer skid by adding paper covering, side protecting the cardboard and strapping per company standards. The setup for each customer can be different depending on the volume expected and the number of operators actually required. Canrack ensures the setup is optimized for the customer’s equipment, taking the order filling process from a manual pace to a system mentality, Clark says.

The rollers on the bundle splitter are all polyurethane coated so they do not damage sheet and give enough grip to process the order. The operator uses Can-



Canrack’s bundle splitter allows Del Metals to store and move inventory in one pile, splitting material into incremental piles when needed.

rack’s pick and split wedges to indicate where to separate the stack of sheet metal. The remote is used to engage the lead roller with the wedge allowing the system to pick the order hands- and scratch-free. The rollers and splitter are set up to ensure there is no sheet-to-sheet sliding or shingling. Once the rollers bring the order onto the splitter gantry, a high-speed motor transports the entire unit to the packaging side where the conveyor is reversed and the order is placed onto the customer skid ready for packaging.

The deciding difference

Sheets transported by Canrack’s bundle splitter are usually standard sizes. Del Metals purchased one that is 72 inches wide. “Ninety-nine percent of inventory is standard sizes, 8 feet, 10 feet and 12 feet long. We can handle up to 16-foot plate as well and should Del Metals need it, we can accommodate their needs by adjusting what they have,” Clark says.

Canrack is able to adjust its bundle splitter should the need arise. “The bundle splitter is very scalable,” Clark adds, noting Del Metals currently has Canrack’s entry-level high-volume machine. “As their business grows, we can add to the inbound that exists and increase the volume we can put through the machine.”

Canrack looked at Del Metals’ floor layout to best fit the machine to meet the

company’s needs. Del Metals’ bundle splitter fits between the supports of the facility, allowing the conveyor to move easily back and forth between two bays.

“This week a customer needed 10,000 pounds of sheet delivered but had to have it packaged in 2,000-pound increments. Before we would manually do five separate splits with a man-operated crane,” LeGendre explains. “Now we just put the 10,000 pound pile on the bundle splitter and it made five splits quickly with absolutely no damage to the bottom and top pieces—a constant problem before.”

Once material is separated and packaged, drivers deliver the material to customers. “Our drivers are our eyes and ears of the company,” LeGendre says. “We had one of our drivers in here today while we were using the bundle splitter. He couldn’t believe how much more efficient the process was in making the order and packaging it on the skid. There was absolutely no damage to any of the top or bottom sheets—something our customers have complained about to him before.” ■

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