



The bundle splitter line at Central Steel & Wire Co., Chicago, packages and delivers blanks more promptly.

SMOOTH SPLITTING

A service center improves sheet splitting process with a system from Canrack

BY CORINNA PETRY

Sometimes it's hard to see the way ahead to an efficient mode of transporting material short distances, determining which pieces go where, and how to get it all away from machine operations so as not to halt production while clearing space.

Central Steel & Wire Co., a pioneer of value-added services and metals delivery to consuming industries, acknowledges spending years of excess manpower to fill customer sheet orders for material processed on their cut-to-length lines.

Roman Andzuzewski, manager of operations engineering, describes Central Steel & Wire as a distributor of a full line of prime quality ferrous and nonferrous metals. "We offer cost savings and superior quality through value-added processing and fabrication for all the metals that we sell," he says.

To keep up with customer demand when filling sheet orders, the company realized it had to improve the process. "Previously we used a lot of antiquated handwork," says Andzuzewski.

"Splitting the master bundle had to be done manually with a screwdriver or other

Central Steel & Wire workers monitor the picking side for the next order.



sharp objects to create a separation in the material where wood or cardboard blocks can be placed. One leg of a sheet lifter was used to slide the material forward in order to engage the second leg of the sheet lifter. At that point, we were scratching the material, which sometimes led to customer rejection.”

To optimize the run time of the cut-to-length line, it made sense to process the whole coil and store ready-cut sheets in racks for future orders to be filled using a faster order processing arrangement.

Canrack Metal Center Systems, Mississauga, Ontario, installed a splitter/bundler system at the Central Steel & Wire’s Chicago service center.

Before installation, “Roman had three different picking stations at one location and manpower was assigned to each station depending on volume of orders,” says Jason Clark, Canrack’s vice president and engineering manager.

As a solution provider, “this was the best scenario for us,” he says. “Without our machine, you are throwing an army of people at splitting and bundling tasks, in order to be able to do the volume of material Central Steel was filling.”

The service center had found success bundling sheets with a simpler, earlier-model Canrack machine.

With that first unit, recalls Clark, “It took us two years of knocking on the door and getting them interested. When we got Roman to see it in operation, that’s when we worked out a performance guarantee. We had done 10 installations and could prove its worth, and so we guaranteed turnaround.”

Convergence

This year, Canrack installed a single conveyor with all features in a line to replace three stations. “We teach customers to think of it like a pit stop in an auto race. A whole team can do something at the same time whether it’s the sideloader operator, the crane operator clearing a previous order or the packaging guy banding a finished order.” Everything is parallel rather than having people perform one task, clean up, perform a second task, clean up, and so on. Now it works more as a team-run order fulfillment line.



A packaging line employee picks a sheet order with the Canrack splitter.

The Canrack line consists of a conveyor, order splitter and runout tables. The splitter uses a wedge system. A chrome-plated tongue separates a number of sheets and the bundle splitter places them on runners or a skid and moves the loads to the banding area. Not only that, the skids can be stacked three high and are still protected from damage.

Central Steel & Wire can now “split the exact amount of pieces or weight from the master bundle without scratching the material, and allows us to meet expectations for quality and the squareness of our bundles,” Andzuzewski says. “We were shooting for a six-minute cycle time. Previously we did about 30 bundles per shift. Our average today is between 50 and 70, depending on the types of orders.”

The machine is versatile. “There is no minimum: You can split a single sheet or a stack of sheets, up to 6,000 pounds.”

According to Clark, “A lot of toll processors have multimillion-dollar cut-to-length lines and cannot clear them fast enough.” But with the Canrack Bundle Splitter, “the operator will count the sheets, place the wedge and use the remote control to lift off the right number of pieces.”

When splitting stacks manually, it is usually accomplished only one sheet at a time and after several lifts, the split order is arranged like a deck of cards and may slide off to one side. “That is where you risk damaging the material,” says Clark. “More importantly, after a slide, a sheet lifter or other equipment comes in and pinches from the sides and the material bounces

around, risking damage again. With our splitter, there’s no pulling or scratching, and no lifting for the operator.”

ROI

The Canrack line has machine capacity of 120 to 140 lifts per shift. Central Steel & Wire specified a need for 100, which is 80 percent of maximum capacity. “Sixty days in, they were satisfied with the results,” says Clark. “They were able to eliminate three stacking tables and reduced their labor intensity considerably.”

The normal return on investment is realized in eight to 12 months, he continues. For Central Steel & Wire, it was four months. Plus, “the quality of the packaged material was much improved,” Clark says.

Andzuzewski concurs. “It was an instant hit. We improved the whole sheet filling process, reduced labor, improved and customer satisfaction—on top of a swift payback.”

He credits Canrack with having “the right answers for what we do in our industry.”

The splitter/bundler line comes in several configurations including a low-volume unit that takes up one-third of the space, according to Clark.

Central Steel & Wire and Canrack Metal Center Systems both belong to the North American Steel Alliance. ■

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