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## Crane handles lifting of heavy metal

Excelsior Steel installed an automated overhead handling system to improve inventory tracking and provide product protection.

By Lorie King Rogers, Associate Editor

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Since 1967, Excelsior Steel, headquartered in Toronto, Canada, has been processing heavy metals, like stainless steel, copper and aluminum, for customers in a broad spectrum of industries such as hospital kitchens, railcars and exhaust systems.

The company had been using a [manual overhead handling crane system](#) to move metal coils that weigh between 15,000 and 20,000 pounds. "In the manual set up, you had to look to find the coils and that took time," explains Tom Coward, president of Excelsior. "Then, if you found the one you needed on the bottom of a stack of coils, you had to move the ones on top before you could pull it out and get it into the processing system."

Excelsior installed an automated handling system (Demag Cranes & Components, demag-us.com). The integrated coil storage system includes a top-running double girder crane that can handle 40 metric tons and is equipped with on-board controls for automatic operation and inventory tracking as well as storage strategies.

Upon arrival from the customer's processing mill, coils are assigned a unique identity. Then, using data points like diameter, length and weight, the system models a profile to determine the ideal storage location.

The system remembers each storage location for quick retrieval. It moves along the grid and lowers the open coil grab arms to the precise height. When the arm's photo eye beam hits the receiver on the other arm, it's safe to close the arms and lift the coil. Then, if only some of the metal on a coil is processed, the system records new data points to determine a new storage location. And, the system is programmed to stack coils safely and to avoid product damage.

According to Coward, the new system has enabled Excelsior to run faster and more efficiently. Metal coils are still stored three levels high, but now Excelsior knows where inventory is at all times, and customers can access the system online to track their product from arrival through processing. The system provides better customer service, better inventory management, and had freed up Excelsior manpower to do more value-added tasks while the crane does the heavy lifting.

### About the Author



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Lorie King Rogers, associate editor, joined Modern in 2009 after working as a freelance writer for the Casebook issue and show daily at tradeshows. A graduate of Emerson College, she has also worked as an editor on Stock Car Racing Magazine.

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