

ERIEZ

Recycling Industry



Southern Metals Company Logs Higher Levels of Nonferrous Recovery with Eriez® Eccentric Rotor Eddy Current Separator

The third-generation family-owned business of Southern Metals Company has been a leading processor of scrap metals throughout the Carolinas since its founding in 1938. The constant investment in new technology allows Southern Metals to operate efficiently on its 26-acre site in Charlotte, North Carolina, where each month customers from as far as 40 miles away truck in recyclable scrap.

Southern Metals takes in a variety of scrap, including auto bodies, appliances, all grades of steel, insulated wire, radiators, copper, brass, aluminum and more. The process of recovering valuable ferrous and nonferrous material from the incoming scrap requires a variety of recycling equipment, an investment which has paid off immeasurably for the company.

Bobby Helbein now runs the business with his two sons, Michael and Andy. They oversee an operation that utilizes an array of fine-tuned equipment from shredding, shearing, bailing and copper chopping machinery to cranes, front-end loaders, fork lifts and bobcats. They maintain a truck fleet with standard open tops, open-top roll-offs and trailers.

Within the scrap yard is various Eriez® recycling equipment that the Heublings purchased as their operation grew. That equipment includes a Cross Belt Suspended Electromagnet, 15" x 36" Rare Earth Scrap Drum and an older model 36" Eddy Current Separator (ECS). When the ECS machine needed some repair work, the family contacted Eriez which then forwarded the request to Dominion Carolina Sales representative Jeff Carr, who mentioned another type of eddy with a new rotor design.

"Eriez explained they had a new ECS with an eccentric rotor. They sent along drawings and pictures and said we could have one of the first units," Bobby Helbein recalls. "We took delivery in June 2012 and it has worked out perfectly. The new

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Eriez offered Southern Metals a one-meter wide RevX-E® model Eccentric Eddy Current Separator which provides a different repelling motion than a concentric eddy. "The eccentric ECS we now have pitches nonferrous much farther and there is better separation from



RevX-E® model Eccentric Eddy Current Separator

non-contaminants,” Helbein says. “This new eddy runs four days a week, eight hours a day and it’s doing a great job.”

The eccentric rotor design RevX-E uses a smaller diameter magnetic rotor offset at the top of a larger outer shell. This allows the rotor’s repelling force to be focused in the area closest to the outer shell. Although the eccentric rotor radiates a more focused surface area for separation, this new design reduces ferrous build-up by releasing it from the belt after it has passed through the field.

The change to the eccentric rotor design and overall improvements in the RevX-E create several advantages and benefits for Eriez’ latest Eddy Current Separator. The new compact design requires less space and is easier to install in most plant operations and the rotor position is adjustable for optimum separation. Also, the RevX-E features access panels conveniently located for easy servicing.

“Getting a more efficient ECS was important because we have customers in the aluminum and copper industries that

need clean product,” Helbein says. “The eccentric eddy has more throughputs and it makes a cleaner job of separation. There were no issues whatsoever when we installed the RevX-E and Eriez was very involved when we had any questions.”

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Established in 1942, Eriez is a global leader in separation technologies. Our commitment to innovation has positioned us as a driving market force in several key technology areas, including magnetic separation, flotation, metal detection, and material handling equipment. The company’s 900+ employees are dedicated to providing trusted technical solutions to the mining, food, recycling, packaging, aggregate, and other processing industries. Headquartered in Erie, Pennsylvania, USA, Eriez designs, manufactures, and markets on six continents through 12 wholly owned international subsidiaries and an extensive sales representative network. For more information, visit www.eriez.com.

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