



Carmeuse Lime & Stone Relies on Durable Eriez® Equipment to Remove Tramp Metal and Convey Crushed Limestone to Railcars



Suspended Permanent Magnet



MA3600 Hawk Metal Detector



HVF Feeder

Note: Some safety warning labels or guarding may have been removed before photographing this equipment.

Eriez and Eriez Magnetics are registered trademarks of Eriez Manufacturing Co., Erie, PA

©2011 Eriez Manufacturing Co. • All Rights Reserved

Problem:

To reduce sulfur dioxide which is—responsible for acid rain formation—electric utilities rely on a wet-scrubbing technique using slurry from limestone to scrub the gases. Many East Coast utilities count on crushed limestone that comes from the Middletown, Virginia mine of [Carmeuse Lime & Stone](#). At this cavernous mine, a network of rock crushers, feeders and conveyors must load 3,500 tons of rich limestone per hour on to awaiting railcars destined for the power plants.

Solution:

[Kemper Equipment](#) worked with Carmeuse Lime & Stone to design, engineer and supply the rail load out system for the Middletown site. The system includes a scalping screen, cone crusher, Kemper conveyors and Eriez® mechanical feeders, suspended magnet and metal detector. During the initial stage of mining, large rocks are fed through a primary crusher, reducing them to approximately 8" in diameter. The crushed rocks then pass under an [Eriez® Model SP-6548 Suspended Manual Clean Permanent Magnet](#) to remove any sizeable pieces of tramp metal imbedded in the rocks. After the 8" diameter rocks pass through the SP magnet, they convey through an [Eriez Metalarm MA3600 Hawk Metal Detector](#) that detects any nonferrous tramp metal. The cone crusher takes the 8" diameter rock and reduces it further before final transport to awaiting railcars. [Eight Eriez Model HVF 36" wide x 60" long mechanical feeders](#) take the 3/4" x 0" limestone and deposit it on to a series of conveyor belts, which load the railcars. The feeders convey 500 tons of crushed limestone per hour, for a total load out of 4,000 tons per hour.

Result:

The Eriez and Kemper equipment help improve efficiency for Carmeuse Lime & Stone. "We've used Eriez equipment from the beginning of this Middletown mine," says Andy Wright, Carmeuse Project Manager. "We trust Eriez and its equipment to provide the production we need."

FOLLOW US ON THE WEB



Web Site: <http://www.eriez.com> | e-mail: eriez@eriez.com

Telephone 814/835-6000 • 800/345-4946 • Fax 814/838-4960 • International Fax 814/833-3348

Headquarters: 2200 Asbury Road, Erie, PA 16506-1440 U.S.A.

Manufacturing: Australia • Brazil • Canada • China • India • Japan • Mexico • South Africa • United Kingdom • United States

World Authority in Advanced Technology for Magnetic, Vibratory and Inspection Applications