Carmeuse In Global 'Limelight'

by Kelly Gates

For more than 140 years, Belgium-based Carmeuse Lime has been producing lime and lime-related products for application in industries including steel, agro-food, paper, chemicals, plastics, carpet, paint, pollution control and water treatment, among others. The global company boasts around 70 individual operations in Europe, Africa and North America, with a total consolidated group net turnover of 940 million Euros in 2006 alone.

Carmeuse Lime has locations throughout Ontario, the Midwest, Northeast and as far south as Baton Rouge, Louisiana. At its River Rouge, Michigan facility, the focus is on producing high calcium limes or "Quicklime" for several key markets, said Jeff Bittner, plant manager for the location.

"Our primary market here is the steel industry with secondary markets being water treatment and road construction," he said.

The River Rouge operation has been processing limestone at the same eastern Michigan site since its plant was first constructed in 1965. Because the company does not mine limestone there, the material is shipped via freighter from a quarry on the Great Lakes.

The freighters carry limestone down into the Detroit River where it is delivered directly to Carmeuse's River Rouge property.

"The ships offload the limestone and we use belt conveyors to feed it into two kilns which each produce around 500 tons per day," said Bittner. "We also bring in coal via freighter and use it to fire the kilns."

After two to three hours in the kilns, the resulting 2-inch sized quicklime is then screened using three quad-deck Ty-Rock screens. Two of these screening units are dedicated to primary screening and the third is a finish screen that produces a wide variety of different-sized quicklime products.

"From the screens, the material is then handled by belts that move it to an area where it is sorted and put into bins," said Bittner.

River Rouge uses brokered trucks to deliver its products to customers throughout Michigan and occasionally to surrounding states, enabling the facility's nearly 30 employees to concentrate their efforts on producing quicklime.

In 2006, with a highly-effective operation already in place, the company further increased its efficiencies by purchasing a tire washing system.

"We're located in a city and we have houses as close as 100 yards away, so we've always been concerned with any kind of impact we have on our neighbors," said Bittner. "We've put a lot of resources into minimizing that impact, including sweeping and washing the streets in order to keep the debris from trucks to a minimum."

Although the company didn't have a significant amount of track-out and sweeping and washing effectively cleaned the street and controlled dust, installing a tire washing system was an additional means of preventing road debris and dust, he added.

Sean Keating, plant maintenance planner, was responsible for the project and went to great lengths to select just the right system, taking nearly a year to review the systems available and compare the pros and cons of several brands. The company considered everything from the number of moving parts and how each unit transported solids away after washing to whether the spray tips were directed upwards or straight at the tire treads of passing trucks. Ultimately, Stanton Systems of Ivyland, Pennsylvania was chosen.

The Carmeuse quicklime processing facility at River Rouge, Michigan has been fully operational for over 40 years.

Photos courtesy of Carmeuse Lime

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"The Stanton system has exceded our expectations," said Keating. "It has no moving parts except for the motor in the pump compared to the other brand which has conveyors and air compressors and was only a few inches wider than the trucks that we typically have coming in and out of here."

Stanton Systems was able to custom-build a unit to River Rouge's exact specifications, making the base wide enough to accommodate various-sized trucks. The manufacturer also included heavy duty galvanized grating and troughs, 4-feet high galvanized walls for water control and load sensors with timers so the system only washes trucks on their way out.

Additional features that helped seal the deal with the Carmeuse location included a "soft start" starter on the water pump, special materials for the housing of the pump, better seals for the pump and a magnetic loop control that prevents someone from activating the unit and potentially getting injured, said Keating.

The system was installed directly in front of the

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company's scales, a location that only requires drivers to slow down for approximately 30 seconds before being weighed and sent on their way to deliver to customers.

As a company, Carmeuse considers safety and environmental issues as integral parts of its operating strategy and the River Rouge management team views the tire wash system as a part of its continuous focus on minimizing any potential adverse environmental impact of its operation. In fact, Carmeuse has pioneered many environmental applications of lime and has a research group working to expand the use of lime in environmentally positive applications.

"Our customer base is always growing and we are working to develop new markets for our lime products," said Bittner.

As River Rouge expands it reach, the company is positioned to successfully manage the needs of all of its customers thanks to the efficiencies being added on a continual basis.

The company considered many different systems available, but ultimately chose Stanton systems.

The Stanton system provides an efficient tire washing system for Carmeuse, a company commited to minimizing any impact from debris in the community they serve.

Stanton Systems: Doing it Right Beats Doing it Twice

As a kid in high school, Dennis Stanton did what most of us did for pocket money-he got himself a minimum-wage, entry-level position at an area business. For him, it was an automatic car wash systems company. But unlike the rest of us, Stanton was persistent and assertive in his efforts, and progressed through the company, from his starting position, to engineering and R&D and ultimately to the top ranks of the company. "I did a lot of design work and built a lot of washes for that company," he recalled. But in 1986, Stanton wanted still more. So he left his position to start down his own path and Stanton Systems was born.

At first, he continued doing what he knew best-designing and building automatic car washes, and he had his fits of success. But the roller-coaster cycle of business had its downturns as well, and it was during one such slow period when his big break came calling. "We were in the middle of a couple of bad weeks of sales, and I got a call of a landfill asking if I could do a truck tire wash," explained Stanton. "I told him there was nothing like that on the market but if he gave me two weeks, I'd bring back a prototype for them to consider." True to his word, two weeks later, Stanton demonstrated how his prototype would work, and the company quickly approved the design. "That was the first tire wash to be officially made in America," Stanton continued. "It was the 'golden age' of the industry in this country." For the first ten years, most of his customers were landfills, as those types of operations were the most concerned with having clean vehicles leaving the property. "Back in the late 1980s, I went into the headquarters of the big trash companies and told them we could literally stop mud at the gate," Stanton claimed. "Our first installation was in a local county landfill, but the one piggy-backed into another, and each subsequent installation let to others. The word-of-mouth promotion spread quite quickly for us." Waste Management, BFI and others became clients of Stanton Systems, who to date has upwards of 200 units in operation around the country.

But as the market and demand began to mature, so did the pressures on product design. "Our original systems were big concrete jobs that took two or three months to build, and had a couple of hundred yards of concrete work, and big concrete tanks for water reservoirs," continued Stanton. "But the last several years has seen stronger competition from foreign manufacturers, and we have had to retool our products to offer steel units to effectively compete with these new design expectations being created in the marketplace.

Not that Stanton is resistant to change-a lower profile product is clearly more advantageous for a number of reasons. But a reduction of performance is a sacrifice he staunchly resists, and he has been challenged to maintain his high level of standards in the face of lessoning average performance in the industry. "We more than recognized that the market was requiring us to change the design, but I was not willing to change the results. Some of our competitors have focused on designing cheaper, low-profile systems at a cost of performance. They may be less expensive, but if they don't work, I don't see the point." Because the industry's customer base is still not well-informed with regard to wheel-washing systems and the features that affect performance, Stanton has taken a hit from a market evaluating products based solely on cost.

But his determination has held strong, and the tide is turning back to results. "Some companies are beginning to pull out other systems because they aren't getting the job done right," said Stanton. "Without a powerful spray, drivers won't slow down enough to where the mud is really being removed. Instead, it's just getting wet and in the end it's almost making the problem worse." And Stanton won't cut certain design corners, just to make a cheaper product. "If the market wants smaller, less expensive units, then we'll work to meet those demands. But we also won't underfit a site with a small 7 or 10-horsepower unit when they really need a 50 or 100 [horsepower]. The smallest unit we make is a 30." He also emphasizes the importance of having two complete tire rotations exposed to spray, versus just a single turn of the wheels. "The first rotation hits the dirt and mud on the tires, and the second is necessary to really rip the stuff off. If you don't take the necessary steps to allow the product to perform, than the results are just not going to be there." As a result, Stanton Systems is the only manufacturer that offers a 5-year warranty, along with a no-mud guarantee to let customers know their product is serious about delivering results. "We won't undersell if we know the results won't be there," he added. "We'd rather lose a sale than gain an unhappy customer. In the long run, it would be bad for our brand's reputation." By sticking to quality, Stanton Systems' 20-year name recognition has remained spotless, and companies from landfills to quarries and beginning to understand that performance is crucial when investing in a wheel-washing system. Standing firm in the face of foreign competition, Stanton himself is now selling systems overseas, with installations from New Zealand to Peru. And with new opportunities springing up in more portable systems for construction sites, and continued regulations against mud tracking in communities across the country, demand is only going to grow. In most any industry, competition from cheaper manufacturers is always a factor to contend with, but for Stanton Systems, maintaining integrity in the product's performance has been all they have needed to maintain a competitive advantage.