

Cement Terminal Reduces Wear, Cuts Noise With Maxi-Tuff® Elevator Buckets



Lightweight Maxi-Tuff® buckets cut chain and sprocket wear because they weigh 80% less than the cast iron buckets previously used.

Maxi-Tuff® elevator buckets have solved costly chain and sprocket wear problems at Lafarge Corp.'s cement distribution terminal in Carrollton, Mich. Made of wear-resistant DuPont Zytel® ST super tough nylon resin, Maxi-Tuff® buckets replaced cast-iron buckets weighing more than five times as much.

The terminal uses a total of 180 Maxi-Tuff® buckets mounted on an 80 ft. elevator that handles up to 600 tons of cement daily.

When heavy cast-iron buckets were used, wear on steel chain and the head and tail sprockets resulted in excessive maintenance and replacement costs. Chains had to be replaced at five-year intervals, according to Gene Meyers, manager of the Lafarge terminal.

"After more than two years of operation with Maxi-Tuff® buckets, we see almost no chain or sprocket wear," Meyers says. "The drive components

are holding up much better than they did with iron buckets," he reports. He also notes that the buckets show no signs of wear from the abrasive cement.

Quieter operation is an added bonus with the Maxi-Tuff® buckets. "The elevator is much quieter with the new buckets," Meyers says. "This gives us a real improvement in working conditions."

Lafarge's elevator is fitted with 14 by 8 in. AA Maxi-Tuff® Nylon buckets. They are fastened to the elevator's chains with bolts and steel adapter plates.

The nylon buckets tip the scales at only 4.25 lbs each, versus 23 lbs for the old cast iron buckets. With 180 units installed, the total weight of the Maxi-Tuff® buckets is only 765 lbs, compared with 4,140 lbs for cast iron.

The elevator with the Maxi-

Tuff® buckets refills two very large silos from which cement is gravity-fed to trucks for transport to plants that make ready-mix and concrete blocks.

The elevator picks up cement from a compartment fed by a screw conveyor that takes cement from five grade-level silos and two star-shaped bins. It delivers the cement to an overhead screw conveyor that distributes cement to the truck-loading silos.

Lafarge's Carrollton terminal handles 120,000 tons of portland cement annually. The cement arrives by ship, rail or truck. With 54 plants around the globe, Lafarge is the world's second largest producer of portland cement.

Maxi-Lift, Inc. makes 17 sizes of Maxi-Tuff® elevator buckets. For more information, call 800-527-0657 or 972-735-8855, or write to:

P.O. Box 700008
Dallas, TX 75370-0008
or
16400 Midway Road
Dallas, TX 75244



The Lafarge distribution terminal in Carrollton, Mich., handles more than 120,000 tons of portland cement annually. Most of it gets lifted with a bucket elevator that refills silos for bulk deliveries.

Zytel is a DuPont registered trademark for nylon resins.

Maxi-Tuff and Maxi-Lift are registered trademarks of Maxi-Lift Inc.