

Pump Keeps Roads Open at Cement Plant



The Company

At its Pennsuco operation near Miami, Titan Florida Cement and Aggregates — a unit of Titan America LLC — operates the largest cement facility in Florida and the fifth-largest quarry in the United States. Annual cement production at the Pennsuco plant exceeds 1.8 million tons, and the quarry produces more than 7.5 million tons of limestone products a year. The plant produces bulk and bagged cement and aggregate products that are sold to public and private construction markets.

The Challenge

South Florida is known for its flash rainstorms, especially in summer when a downpour is often a daily occurrence. Titan Florida Cement and Aggregates' Pennsuco facility mines, washes and sizes gravel and produces cement; it's dusty work that's made more challenging during heavy rain.

Roads become impassable as rock dust, sand, gravel, grit and other debris wash across the flat terrain. Workers use heavy earthmoving equipment to plow the slop off to the side of the roads, reopening them to traffic. The highly abrasive runoff collects in a pond some 100 yards long by 40 yards wide, and this must be pumped often to

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keep its level low enough to prevent the roads from flooding again. Water from the runoff pond is also used to wash screens in the plant.

The Solution

For many years, the Pennsuco plant used belt-driven Gallagher/Ash pumps to keep the runoff pond at the proper level. However, the pumps were expensive and difficult to maintain, as there were long lead times for parts; furthermore, the parts themselves were expensive.

Working with Barney's Pumps in Coral Springs, Florida, engineers at the plant purchased a KZN110 heavy-duty submersible slurry pump from BJM Pumps. The pump is especially designed for pumping heavy slurries containing lime, mill scale, coal, ash, silt, food waste, or sand and gravel. Its key components are made of high-chrome iron to resist abrasion, and the pump features an agitator that puts heavy solids into suspension, so they can be pumped away with the liquid.



Titan Florida Cement and Aggregates later purchased a second KZN110, and the two KZNs have been running

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reliably at Pennsuco for more than three years. The Gallagher/Ash pumps are now stored for backup use only.

For more information, please visit www.bjmpumps.com [1].

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[1] <http://www.bjmpumps.com/>