

Dolese Keeps Consistent with McLanahan Classifying Tanks, USPs and Cross Belt Sampler



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Dolese Bros. Co. is a full-service construction supply and materials operation in Oklahoma that operates five washed sand plants, eight crushed stone quarries and 32 ready-mix facilities. For more than 100 years, Dolese has remained focused on providing their customers with excellent service and quality products at a fair price.

Dolese’s Engineering Manager, Cory Shreffler, said Dolese understands the value of consistency when it comes to construction aggregates, and they know their customers feel the same way.

Challenge

When Dolese realized the need for a large volume of concrete sand in the Dallas/Fort Worth market, they searched for a location with a desirable deposit that had access to rail service. They discovered such a location in Ponca City, Okla., and built a rail spur there. Then, Dolese began to analyze the size of plant they needed to serve one of the larger Midwestern markets. They wanted equipment that would not only operate reliably, but would give them a consistent product to help better serve their customers.

“When we look at large production, consistency in product is really what drove us to pick McLanahan equipment for this site,” said Shreffler. “McLanahan has been one of the better equipment suppliers to work with when it comes to delivery, schedule, really doing what they say they’re going to do when it comes to delivering equipment and then that equipment doing what it’s supposed to do when it shows up.”

Dolese has a long history with McLanahan and has appreciated the versatility of McLanahan equipment at their other plant locations, as well as the knowledge and experience McLanahan’s process engineers have to offer.

“In my experience, McLanahan has just been an experienced group of folks that we can reach out to, to help us solve some of our deposit issues,” Shreffler said. “McLanahan, to us, has pretty typically been someone that we can call and toss these ideas back and forth about what would be the best



equipment to put in, what's the most efficient installation we can put in — not necessarily always adding more process equipment to solve the problem, but more adding the right process equipment to solve the problem.”

Solution

Working with Dolese to design a plant that fit the Ponca City site, McLanahan installed two Classifying Tanks and two Ultra Sand Plants, consisting of Dewatering Screens and Separators, that are processing around 600 to 800 tons per hour of C-33 concrete sand and around 100 to 150 tph of mason sand as Dolese develops their lake.

Material dredged from the lake is split to a pair of horizontal scalping screens, and then each split flows to a McLanahan Feed-Regulating Sump, which gives a more consistent feed to the two Classifying Tanks. Each Classifying Tank sorts the material and discharges it to two Dewatering Screens, which dewater the sand to a drip-free material for stockpiling. Water and any material that passes through the Dewatering Screens fall into a sump, from where it is pumped to Separators, which recover the fine sand material.

Shreffler said the Dewatering Screens play an important role in their operation. Because Dolese stacks their sand over large reclaim tunnels that convey the sand to the train, they need the material to be as dry as possible to prevent handling issues inside the tunnels.

“The most beneficial part of the design of this plant is the fact that it does dry the material and keeps it to where we can manage it and load it in railcars a lot better,” said Troy Banks, Operations Manager – Aggregate/Sand Division.

McLanahan also installed an automatic Cross Belt Sampler that sweeps a section of the material off the moving conveyor belt as it is headed to the stockpile and discharges it to be analyzed.

“The McLanahan Cross Belt Sampler has been a blessing to us here,” said Jeff Lewis, Superintendent of Dolese’s White Eagle Plant. “It makes it a lot easier and safer for my guys to pull a sample, and also gives a better representative sample.”

Results

Since commissioning their White Eagle Plant, Dolese has been happy with its performance and their continued relationship with McLanahan.

“I’ve been very pleased with the support we’ve gotten with McLanahan, and everything is running seamlessly,” Lewis said.

All of the equipment — the Feed-Regulating Sumps, Classifying Tanks, Dewatering Screens, Hydrocyclones and Cross Belt Sampler — plays a role in helping Dolese meet their consistency goals.

“The Feed-Regulating Sumps really allow us to give a more consistent feed to these Classifying Tanks, and that let’s those Classifying Tanks sort that material in a much more consistent way, really to the extent where it’s near hands-off for our operators,” Shreffler explained. “He can walk away and feel good about the product going through it.”

According the Shreffler, the Cross Belt Sampler adds even more consistency to their operation, allowing them to sample at a more regular frequency and making their process more consistent.

“It helps us take out any sampling bias,” Shreffler said.

Overall, the reliability of the McLanahan equipment has allowed Dolese to achieve consistency across the board, from consistency in the equipment’s operation to consistency in the final product.

“Our experience with the reliability of McLanahan equipment has been really great. We were able to really utilize all of the kind of long runtime opportunities that well-designed equipment permits,” Shreffler said. “With McLanahan equipment consistently operating when we need it to, it lets us know how we can better serve our customers.”



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