



CRUSHING EXPECTATIONS

Kilgore Companies, a division of Summit Materials Company



Location:
Salt Lake City, Utah, USA



Material:
Aggregates, sand and gravel derived from a natural alluvial deposit (Dolostone)



Equipment:
Kodiak K350 Cone Crusher



Total Processed:
200,000 tons in 2023;
average of 450 TPH



Final Products:
#67 Rock, #89 Chip, C-33 Sand



THE CHALLENGE:

How does an existing quarry diversify its output, as part of a continuous improvement plan, without missing a beat in production? For Kilgore Companies, a division of Summit Materials Company, this meant partnering with its local dealer, Goodfellow Corporation, to put a selection of crushers to the test. The winner was the Astec Kodiak® K350 cone crusher that set them on track to produce more sand than rock.

Building a Strong Foundation

Nestled in the mountains outside Salt Lake City, Utah sits the Kilgore Companies Stockton site. Here dolostone, a rock known for high wear against steel, is processed to make construction sand for a large variety of construction projects. Serving both internal and external ready-mix customers, Kilgore has become synonymous with reliability and quality in the construction materials sector.

As a seasoned Aggregates Area Manager, Cort VanGorder has seen the company's evolution firsthand over his 15 years with the company. "I started my career on the asphalt side of the industry running Astec plants in Utah," says VanGorder. "Then I transitioned to the aggregate side of the business several years ago."

Kilgore has undergone a significant transformation over the years as well, starting as a small, local operation before becoming the west region platform for Summit Materials. This expansion is due in part to the value the company places on continuous improvement. "We've been constantly growing in our market," says VanGorder, "which has given us opportunities to upgrade and take chances on new machinery."

Diversification without Disruption

First established about four years ago, the Kilgore site originally utilized Astec portable plants consisting of a CS3055 Jaw, two Kodiak® K400+ cone crushers and two 8x20 horizontal screens to create a variety of sand and gravel products commonly used for ready mix concrete. In 2023, when the site identified a strategic need to produce more sand, they turned to their local equipment dealer, Goodfellow Corporation, to help decide what would best meet their needs. Kilgore needed a solution that promised both efficiency and durability.

"Goodfellow was great to work with on this. Based on our continuous improvement strategic planning, we knew we wanted to change our product ratios. They brought a VSI (Vertical Shaft Impactor) and this K350+ cone out and did a side-by-side comparison. We got similar sand ratios out of both and chose to keep running with the cone. This allowed us to work with Astec and get the demo from Goodfellow."

Bill A Royce, Regional Sales Manager at Astec adds, "We design, engineer and manufacture both the cone and vertical shaft impactor, which gave us the opportunity to test both side-by-side. We were able to analyze the results of the Kodiak K350+ cone versus the 4500 VSI during this demo and ultimately, we decided that the K350+ was the best choice for this application. Overall, the cone stood out on the sand yield, lowering the HP requirements (350HP vs 600HP), and better wear (liners vs hard parts) for the customer. They are also utilizing other Kodiak cones, making the learning curve for the new K350+ minimal. The unique chamber geometry, speed, stroke and hold down pressure of the K350+ make this crusher an ideal solution for attrition crushing applications."





Selecting the right equipment was only half the challenge. Once the right equipment was identified, there were other considerations at play. Operational hurdles such as the need to maintain output without disruption while working within restricted operating hours demanded a solution that could be quickly integrated without disruption.

The effective and long-lasting relationships between Summit Materials, Goodfellow Corporation and Astec Industries ensured the new equipment was incorporated without missing a beat. With the K350+ serving as a catalyst for increased sand production, lower HP requirements, and better wear, Kilgore is poised to capitalize on emerging opportunities and solidify its position as a leader in the aggregates sector.



“We’re seeing great yield increase, with the K350+ producing more sand. With the new design providing extra clamp pressure, we’ve been able to get a lot more sand out of it than we have of our previous cones.”

Long-Term Partnership and Future Growth

The future is bright for Kilgore Companies. As they continue to merge sites and increase tonnage output, they are on track to produce more sand than ever. Goodfellow Corporation and Astec will be on hand with technical and parts support every step of the way.

“At Goodfellow, we live and breathe customer support. We are with our customers every step of the way to ensure they are successful. From planning and erection to aftermarket parts and service, we are more than equipped to serve our customers,” says Paul Jeo, Sales Representative for Goodfellow Corporation.



In the dynamic landscape of quarry operations, innovation is not just a choice—it’s a necessity. Kilgore’s journey, guided by the pursuit of excellence and fueled by strategic partnerships, serves as a testament to the transformative power of technology. With the K350+ cone crusher at the helm, they are not only diversifying output, but also shaping the future of quarrying one ton of sand and gravel at a time.