KOMATSU

Attaining higher velocity

case study

Project challenge

Intending to improve productivity at its underground copper mine, our customers looked to us to achieve their desired outcome. Specifically, we were tasked with increasing the drill velocity, increasing output and efficiency.

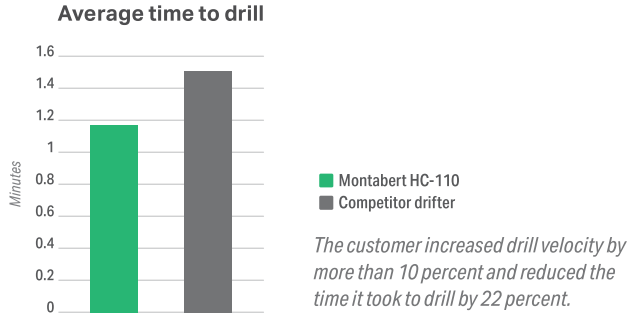
Solution design

The customer agreed to a trial of the Komatsu HC-110 drifter manufactured by Montabert. Extensive testing and data collection were also done. Initial data showed low production levels, so we helped crews set and track methods to improve efficiency, enabling the operation to achieve its goal of increasing productivity.

After we finished our research, the team proposed that the customer trial the Montabert HC-110 drifter. This particular product is designed for ease of drifter conversion and provides improved penetration rates and lower consumable costs compared to other drills on the market. The mine agreed to validate the HC-110 for drill times, operating costs, maintenance and safety.

"This drifter is better, has more velocity and is highly reliable. I can finish my job safely and in less time."

Operator from the customer's mine



The customer increased drill velocity by more than 10 percent and reduced the time it took to drill by 22 percent.

The solution

We performed the tests on production drilling and drifting. To ensure success, we supplied the customer with a technician, a drillmaster and an operator trainer to aid the mine staff with any issues or troubleshooting.

Our team's plan involved collecting information about the usual operating conditions (pressure, temperature, etc.), defining specific areas and equipment, operators, types of rock drilling tools, rock abrasiveness, and many other factors.

Next, they collected data on the velocity output in normal conditions with actual drifters and operators in the same location where the HC-110 drifter would be tested. Lastly, we applied our drifter conversion, then collected the same data to compare to previous procedures and equipment operating in similar circumstances.

By providing the initial data to show low production levels, then helping crews set and track methods to improve efficiency, we were able to help the operation achieve its goal of increasing productivity.

The results

After applying our solution, the customer was able to **increase drill velocity by more than 10 percent and reduce the time it took to drill by 22 percent** and is now able to drill patterns with more holes or increase the amount of time available to charge explosives.

Additionally, the customer now has the **potential to increase its productivity by roughly ten percent when compared to other equipment and previous procedures.**

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