

Mine Smarter. Reduce Emissions.

CR Powered by Epiroc products are an ROI-driven way for miners to begin to reduce their carbon emissions today.

Lower Emission Mining Solutions

The road to net zero is complex – there's no silver bullet. We help our customers take steps today to reduce their emissions and progress towards their sustainability goals. By developing products and technologies which enable more efficient operations, miners can burn less fuel and generate fewer emissions.

Thunderbird 1110 Drill Optimization

Drill and blast is the first step in a well optimized mine operation. When drill patterns are not accurate and rock isn't properly fragmented, not only does it burn more fuel, but the entire mining value chain is affected.

Thunderbird provides high-precision GPS guidance to operators so they can drill accurately to the pattern and depth. StrataSense, which maps the rock hardness, helps blast accurately and reduces wasted explosives.

By drilling efficiency and avoiding over-drilling, drills burn less fuel, reducing emissions. We've found that Thunderbird can eliminate up to 30% of drill depth errors and associated wasted drill time, saving up to 445t of CO₂e per drill annually*.

Miners can also save on explosive costs by understanding rock hardness. By using only the necessary explosives, miners save on carbon emissions from wasted explosives. Explosives can be reduced by 195t CO₂e annually.

The effects on the downstream value chain are also significant. By drilling and blasting to plan, rock is properly fragmented. This means that excavators use less fuel to dig, trucks use less fuel to haul, and the crusher burns less fuel, all contributing to reduced emissions.



Cast Lips for Hydraulic Excavators

Stingray is our cast lip for large hydraulic excavators. Thanks to its design, engineered to reduce lip weight, the cast lip provides improved digging performance by reducing dig energy by 13% in comparison to the market standard.

Our cast lips share the same design intent across our range. A slimline lip profile allows material to flow with less resistance, so buckets can penetrate dirt faster, with less effort. By making digging more efficient, excavators burn less fuel, reducing CO2 emissions.

Diesel has a fixed energy density per Litre burned. By reducing the energy required by 13%, the lip can save up to 38 kg CO2e/hr, adding up to a savings of 217t CO2e annually*.



Titan 3330 Payload Monitoring

Titan 3330 is a digger-based payload monitoring system. By providing real-time guidance to operators as they load haul trucks, Titan 3330 has been shown to reduce payload variability, tightening spreads and increasing average truck payloads without increasing overloads.

By minimizing the number of load haul circuits completed per tonne of ore mined, Titan 3330 reduces CO2 emissions for the same number of tonnes mined.

For one miner, Titan 3330 increased median truck fleet payload from 227t to 239t, reducing diesel L/t by 0.8%. Over 10 million tonnes/year were additionally moved by the same fleet. That's the equivalent of a 1.3 million litre pa diesel saving, equal to 3,500 tonnes CO2e / year.

Titan may save up to 429 t/pa CO2e for the same ROM production*.

Step Up to Meet Your Sustainability Goals

CR Powered by Epiroc products are the next generation of mining technology that enables our customers to link actionable data with operational decisions that deliver their ESG and performance ambitions.

Combining Thunderbird 1110, Stingray, and Titan 3330, a miner could expect to see over 92,000 t/year CO2e reductions. Let us put numbers to work to revolutionize your operations and advance your sustainability goals.

*Actual performance will vary based on mining conditions and commodity.

CR Powered by Epiroc is transforming mines with cutting-edge technology.

We develop industry-leading digital technology solutions for the mining industry, working together with the world's best miners towards a safer, more productive, and sustainable future.

Start the conversation



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