

TiC Blow Bars Deliver 94% Increase in Runtime

Unicast's innovative use of titanium carbide (TiC) inserts nearly double wear life of impactors and blow bars for significant cost savings.

PRODUCT

80mm TiC M19 Blow Bar.

APPLICATION

Cement Plant, Horizontal Shaft Impactor.

CHALLENGE

Crush more limestone before needing to be replaced or rotated.

SOLUTION

Replace OEM blow bars with Unicast's TiC reinforced blow bars.

RESULTS

The TiC Blow Bars delivered a 94% increase in runtime.



The performance of Unicast's TiC Blow Bars far exceeded our production expectations, and also translated into a substantial annual labor cost savings.

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Cement Plant**
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Cast replacement wear parts with improved wear life.

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BACKGROUND

Six original factory blow bars consistently delivered a wear life of 34 weeks per campaign in a limestone crusher at Lehigh Southwest Cement Company in Tehachapi, California. To remove each of the six blow bars and flip or replace them involved four men at two 12-hour premium pay shifts at an estimated cost of \$14,833.68.

CHALLENGES

High operation and maintenance costs demanded a need for blow bars with a longer wear life. Lehigh Southwest Cement Company requested a blow bar that would crush more limestone before needing to be replaced or rotated.

SOLUTION

Unicast guaranteed to match or exceed the wear life of the original factory blow bars of 34 weeks or more with its **80mm TiC M19 Blow Bars**. TiC rods for this application were 13mm in diameter. TiC Blow Bars cost 50% more than original factory blow bars. Confident in the performance of TiC, Unicast offered a payment plan to match the cost per ton of rock crushed as the original factory blow bars to reduce the client's perceived risk.

PERFORMANCE & RESULTS

The original factory blow bars consistently delivered a wear life of 17 weeks/side for a total of 34 weeks total life per blow bar. The Unicast TiC Blow Bars delivered a dramatic increase of 33 weeks per side for an expected total **66 weeks crushing wear life**. The TiC Bars delivered a **94% increase in runtime**.

SUMMARY

Although the purchase cost of the TiC Blow Bars was 50% more than the original factory bars, the TiC Blow Bars delivered almost double the wear life for a lower cost per ton crushed. The increased wear life in addition to the savings in annual labor costs to flip or replace the bars far exceeded the customer's expectations.

