



CASE STUDY

HybridX by WearKraft

In highly abrasive applications, less-than-ideal feed conditions can quickly turn wear parts into a recurring source of downtime. When demolition debris, rebar and other hidden material enter the crusher together, broken or prematurely worn blow bars can stall production and drive up maintenance costs. HybridX was developed specifically for these demanding conditions, combining strong wear performance with improved resistance to breakage.

THE CHALLENGE

A North American concrete demolition and recycling operation was processing granite-based recycled concrete through an impact crusher, with feed sizes regularly reaching 24 inches (600mm). The feed stream routinely contained a mix of abrasive concrete, embedded rebar, steel, and other demolition debris, creating highly variable impact loads inside the crusher. The existing high chrome ceramic blow bars were unable to withstand the application. Breakages became frequent, unplanned downtime increased, and replacement part costs continued to rise.

KEY OPERATING CONDITIONS

- ▶ Material: Recycled demolition concrete (granite-based aggregate)
- ▶ Feed size: Up to 24 in (600mm)
- ▶ Contaminants: Rebar and light structural steel present in feed
- ▶ Highly abrasive aggregate
- ▶ Apron settings: 5 in (125mm) primary / 1¾ in (45mm) secondary





THE SOLUTION

The operation switched to the HybridX, a blow bar built to perform where traditional products fall short.

Standard high chrome ceramic bars offer strong wear resistance in abrasive applications, but their brittleness under impact makes them vulnerable to breakage when feed size is uncontrolled or steel is present in the feed. Martensitic alloy bars handle impact better, but tend to sacrifice wear life in highly abrasive conditions. The HybridX bridges this gap, delivering the wear resistance associated with high chrome metallurgy alongside a breakage resistance that approaches that of martensitic alloys. The result is a blow bar built to handle what real-world demolition and recycling operations throw at it, without the usual compromise.

RESULTS

- ▶ Zero breakages throughout the application
- ▶ Extended wear life compared to the high chrome ceramic bars previously in use
- ▶ Improved uptime and more consistent production

Customer Feedback

"If you're working in concrete demolition and you've experienced low productivity or bar breakage, I would highly recommend this product."

Results are based on the specific application and operating conditions detailed above. For applications involving highly compressive primary materials such as granite or basalt, feed size controls should be reviewed on a case by case basis.

Contact your WearKraft representative to discuss suitability for your specific operation.