

Case Study:

Major Iron Ore Port Operation (WA)

How TS Global Engineered
the Right Scraper Solution
for a High-Demand Port
Operation

The Client

A major iron ore port operation in Western Australia, exporting approximately **194 million tonnes per year**, relies on consistent conveyor performance and reliable belt cleaning to sustain its high daily throughput.

With such demanding production rates, scraper wear had become a critical factor in maintaining planned maintenance schedules.

To address this, the operation sought TS Global's expertise to review their current belt-cleaning setup and recommend improvements that would better support long-term performance. The site outlined a clear operational target: achieve a minimum of 17 weeks of scraper life between shutdowns, ensuring maintenance alignment and reducing the need for mid-cycle interventions.

The Problem(s)

The site knew the outcome they needed — extended scraper life. However, determining the correct cleaner and configuration required TS Global's specialised support. The operation had been using our standard XHD primary scraper, an effective and widely adopted solution across the industry. Yet, due to the extreme tonnage and high belt speeds at this major iron ore port, the standard blade was not the ideal fit for achieving the targeted 17-week maintenance interval.

The port partnered with TS Global to overcome the following challenges:

- » Harsh operating conditions that caused accelerated blade wear.
- » Shutdown labour frequently redirected to scraper refurbishments.
- » The need for a fit-for-purpose, engineered system capable of delivering long-life performance under heavy loading.

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The Solution(s)

TS Global assessed the site conditions, belt speeds, and wear environment to determine which scraper would meet the iron ore port's required service interval.

To achieve the 17-week target TS Global engineered the correct fit:

- » An upgrade from the existing H-Type scraper to the **Mega XHD polyurethane** system, specifically designed for high-tonnage, high-speed conveyors.

The Mega XHD blade proved highly effective for the port due to its heavy-duty design and enhanced blade profile, which allows it to better conform to worn belts while maintaining consistent cleaning pressure. Its reinforced internal structure prevents bending or twisting under load, ensuring stability even under high material impact.

The system's modular cartridge design also makes maintenance and blade change-outs quicker and safer, reducing manual handling and simplifying shutdown tasks.

This combination of durability, adaptability, and ease of servicing made the Mega XHD particularly well-suited to the high-throughput, abrasive conditions at the iron ore port's operations.

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The Result(s)

The Mega XHD primary scraper delivered strong, measurable improvements aligned with the iron ore port's shutdown and maintenance requirements.

Key Outcomes:

- » **Long-lasting, durable blades** that met their target service interval of approximately 17 weeks.
- » **Consistent belt cleaning performance** throughout the operating period.
- » **Easier refurbishment and maintenance**, supported by the Mega XHD's modular cartridge design, allowing quicker and safer servicing.

Following the success of the initial installation, the iron ore port is now rolling out the Mega XHD system to a second conveyor, reflecting their confidence in the scraper's performance and long-term suitability for their site.

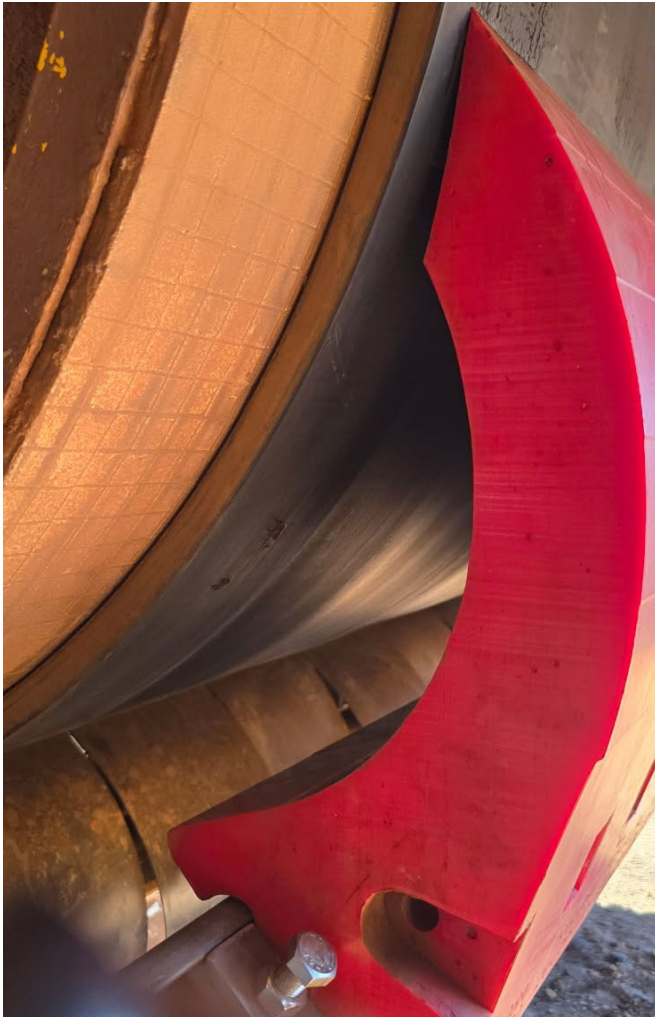


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The Result(s)



*If your company is looking to achieve the same results as this **Iron Ore Port in Western Australia**, contact us! TS Global has a proven track record of helping clients achieve conveyor belt cleaning and we'd like to help you do the same.*

Contact us today to find out how we can bring winning results.

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