

CASE STUDY

RioTinto

"High Five" Award Winner ★
May 2023: Light-Weight
P Cushions for
Belt Cleaners



ABOUT US

"At the forefront of innovation for over a decade, we have been revolutionising the way businesses move. With a steadfast commitment to delivering premium quality, our custom solutions have become the cornerstone of efficiency for enterprises big and small.

Driven by a passion for excellence, our mission is to continuously design and manufacture cutting-edge conveyor and polyurethane solutions that stay ahead of the curve and drive industry standards."

GRAHAM HOLFORD

General Manager



OBJECTIVES

The weight of belt scrapers is directly affected by the number of modules (tips and cushions) installed on them. The wider the belt, the heavier the belt scraper. This affects the fatigue and effort required by the operator to install and refurbish belt scrapers, it also increases manual handling. Rio Tinto was seeking an alternate option to reduce these hazards.

SOLUTIONS

A trial was run at Dampier 12E conveyor where 10 composite Light-weight secondary P cushions were installed. As a result, the overall weight of the scraper was reduced by 5 kg, effectively reducing the effort required for the scraper's refurbishment. The cushions were removed after 30 weeks in service, showing identical cleaning performance and no signs of shorter life.

Overview

Client Challenges

- Operator fatigue.
- Manual handling risks.
- Weight of traditional belt cleaners/scrapers.

Benefits

- Manual handling risks decrease.
- Scraper weight reduction, up to 6.5 kilograms for a 2000BW cleaner (weight savings of 0.5 kg per unit).
- Effort and fatigue reduction.
- Mirrored performance as other conventional (steel/heavier) options.
- Transforms Rio Tinto's safe production system



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