

# CASE STUDY

## Optimising Conveyor System Performance



### 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

1. Implement a new belt cleaner set-up to optimise maintenance techniques.
2. Upgrade the outdated belt cleaner mounting arrangement to enhance cleaning effectiveness and efficiency.
3. Reduce heavy belt wear by revising the current design.

### SOLUTIONS

A new 1200BW belt cleaner system was installed on Tuesday 10th January at Mount Thorley South CHPP. The new system replaced an old Primary H cleaner that was mounted on and bolted directly to the head pulley bearing assembly, and a secondary U cleaner with a pressure roller that was mounted in a fixed position under the belt return behind the head pulley.

### Overview

#### Client Challenges

- Old primary cleaner mounted on pulley bearing, putting load on housing.
- Secondary cleaner with pressure roller in fixed position.
- Heavy belt wear and profiling conditions.

#### Benefits

- New system mounted on cheek plates supported on track around pulley, reduces load on housing.
- Primary cleaner maintains correct coordinates and tension with cheek plate movement.
- U cleaner replaced with 2 spring tensioned P cleaners, full belt width coverage.
- Improved tip tension and cleaning on material carry path.



**CONTACT US**  
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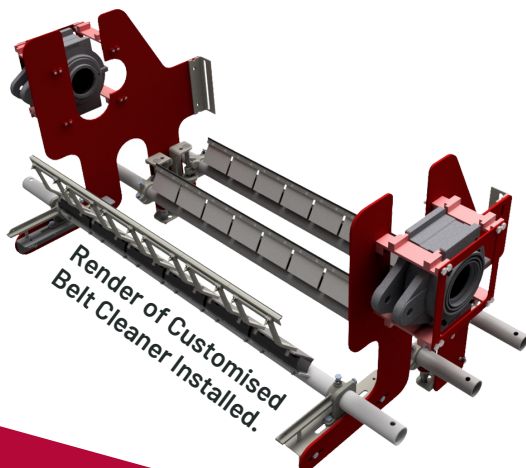
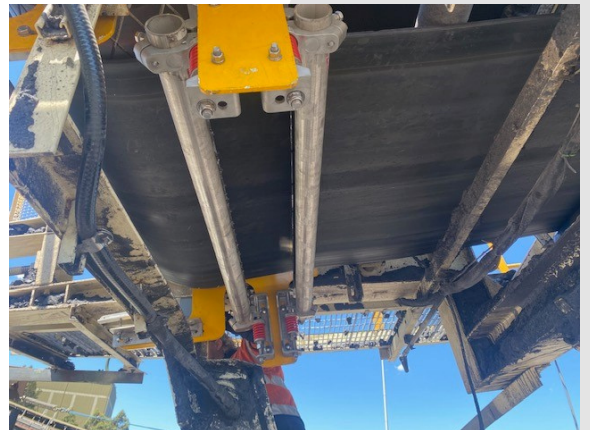


### SOLUTIONS (CONTINUED)

The new belt cleaner system is mounted on cheek plates that are supported on a track around the head pulley bearings. This arrangement transmits load directly onto the conveyor structure without putting a load on the pulley bearing housing, as the old system did. This allows the cheek plates to move with the pulley whenever belt adjustments are made, ensuring the primary cleaner maintains the correct coordinates and tension.

The outside tips and cushions were removed from the primary cleaner due to heavy belt wear and profiling conditions. This was done to provide better tip tension and cleaning until the belt is replaced later in the year. The secondary U cleaner was replaced with 2 spring-tensioned P cleaners that cover the full belt width and mount onto the cheek plates. Both P cleaners had their tips profiled to the worn belt for maximum performance.

The installation of the new belt cleaner system has improved the serviceability and efficiency of Stacker 1 at Mount Thorley South CHPP, providing better cleaning and maintenance of the conveyor belt. Similar systems have been installed at various client sites which have been working successfully for over 2 years.



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