

ESS IMPROVES CONVEYOR EFFICIENCY AT A FERTILIZER PLANT

A Geelong fertilizer plant, conveying raw Super Phosphate was experiencing major CARRYBACK issues and accelerated blade wear on two of their raw feed belts. The existing 'H' type cleaners were located in a designated confined space area, making maintenance difficult and lengthy.

ESS technicians worked closely with the client's design and maintenance team to come up with a tangible solution that would be implemented over a scheduled shutdown.

When choosing the correct Belt Cleaners, ESS technicians took into account:

- Confined space restrictions
- The corrosive nature of the material
- The speed of the conveyor belt
- Maintenance schedules



During a scheduled shutdown period, ESS technicians removed the existing belt cleaners (which required confined space entry to service). Replacing them with an ESS Belt Cleaning System (Primary and Secondary cleaner) on both conveyors.

ESS XHD Durt Tracker primary cleaners were installed incorporating CYA doors to allow for external blade extraction using the patented Keysafe tool.

For the secondary units, ESS technicians installed patented, ESS Inline Premium Cleaners with segmented cartridges that allow the cleaners to be removed and serviced on the access platforms.

The Installation of the XHD Durt Tracker and the Inline Premium cleaners has eliminated the need for confined space entry during servicing.

ESS trialled the DZ 10 tungsten tipped blades that outlasted the existing opposition's blade tips.

Due to the irregularity in which the belt cleaners were inspected, all cleaners were fitted with Air tensioners, to ensure correct blade to belt tension continued over an extended period.

The logo for ESS Engineering Services & Supplies, featuring the letters 'ESS' in a bold, stylized, orange font.

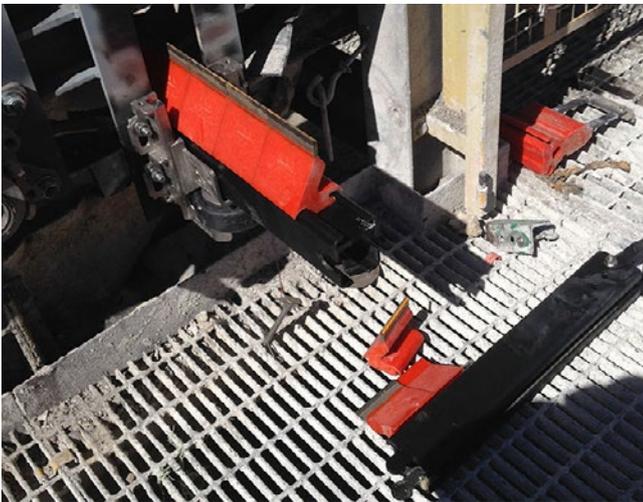
ESS ENGINEERING SERVICES & SUPPLIES

Ph: 1800 074 446 www.esseng.com.au

COST, BENEFIT & RETURN ON INVESTMENT

COST

For complete design, manufacture, removal of old cleaners and installation of all new cleaners on the two belts cost \$48 050.



BENEFIT

The installation of the ESS Belt Cleaning Systems offers safer, quicker maintenance and reduced CARRYBACK. The need for confined space entry has been eliminated.

The DZ 10 Tungsten tipped blades provide a longer blade life, which increased intervals between replacements of the blades.

Air tensioners provide a more reliable, continued blade-to-belt tension. .



RETURN ON INVESTMENT

Reduced Service time – By installing ESS Belt Cleaning Systems, service time was reduced from 8 hours per cleaner (32 hours) to 1-2 hours per cleaner (4-8 hours) depending on build-up.

Reduced CARRYBACK – Prior to the installation of the ESS belt Cleaning System, approximately 15 tonnes of product (Raw Super Phosphate) was being cleaned from under each belt per day. Over the course of a year 10,950 tonnes was lost from the conveyor system.

Immediately after the installation of ESS Belt Cleaning Systems CARRYBACK clean-up was reduced to .5 tons per conveyor per day. From 10950 tons a year to 365 tons a year!

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