

Case Study – K-AllShelter® Conveyor Belt Covers

Kinder Australia Product:

K-AllShelter® Conveyor Belt Covers

Product Category:

Conveyor Covers & Enclosure

Location:

Victoria

Conveyed Materials:

Basalt

Conveyor Belt Width:

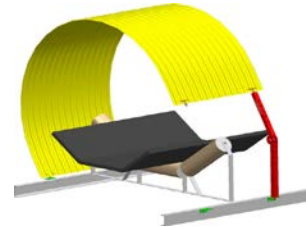
1200mm

Conveyed Belt Speed:

1.5 MPS

Installation Date:

January 2021



CHALLENGE:

- Address OHS hazards related to excessive dust emissions.
- Protection of conveyed materials from heavy rain and other extreme weather conditions.
- Dust settling on the inside of the belt contributed to conveyor drive slippage.



ABOVE

K-AllShelter® Conveyor Belt Covers installed.

This case study focusses on our Victorian Quarry client turning to Kinder to rectify some of their onsite dust related issues.

During stage 1 of the dust reduction project, Kinder's **Essential Seal Dust Containment Solution**, comprising K-Sure® Belt Support System, K-Containment® Seal and K-Snap-Loc® Dust Seal System was recommended and installed.

Stage 2 further addressed the dust issues on-site, through regular site inspections by our Field Applications Specialist pinpointed CV 17 as another key area for dust prevention and control. It was also observed that water on the underside of the belt due to heavy rain caused belt slippage.

CV 17 gets fed by 2 Vertical Shaft Impactors which frequently creates excessive dust emissions particularly around the front of the transfer site, during start up and the production phase. Baffles were previously used however this solution could not combat excessive dust emissions during the normal production process.

A proven, cost-effective and high performing dust suppression solution was ideally sought by this Quarry operator.



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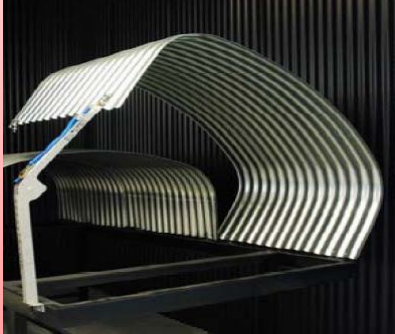
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SOLUTION:



K-AllShelter® Conveyor Belt Covers



K-AllShelter® Safety Strut



Early 2021 Kinder designed a 17-metre stretch of **K-AllShelter® Conveyor Belt Cover**. The Quarry operator selected the standard sized conveyor cover option, these were ideally suited to the specific conveyor belt width. The covers were later successfully installed on a section of CV 17. The installation stage involved two maintenance team members, taking roughly one full day and the aid of elevated work platforms to complete the installation.

K-AllShelter® Conveyor Covers – Classic were chosen for its lightweight, high strength and easy to install features. Future conveyor maintenance is made simple and hassle free due to the conveyor covers being hinged on both sides and **K-AllShelter® Safety Strut**, also procured by the Quarry provided quick access inside the conveyor covers for repair and maintenance work.

BEFORE



Excessive dust emissions located at VSI Transfer Site.

AFTER



RESULTS:

- *Excessive dust emissions issues resolved at transfer site.*
- *Belt slippage issues resolved.*
- *Protection and extension of conveyor belt and its service life.*
- *OHS hazards minimised due to dust control.*

After installation, instead of the dust becoming airborne, it instead settled on the conveyor belt, minimising potential OHS hazards. It was also noted, minimal dust emission was escaping out at the ends of the 17-metre K-AllShelter® Conveyor Belt Covers.

Formal visual inspections were conducted by Quarry Maintenance teams and they are extremely pleased to report the covers have exceeded product performance expectations, the targeted problem areas now show little to no dust emissions.

“During periods of heavy rain, the conveyor now shows no signs of slippage, this was problematic in the past.

K-AllShelter® Conveyor Belt Covers now keep our belt dry and has solved our dust issues”.



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