

CASE STUDY: The Essential Seal Combination

Kinder Australia Products: K-Sure® Belt Support System

K-Snap-Loc® Dust Seal System

K-Containment Seal

The Essential Seal Combination

Product Category: Conveyor Skirting and Transfer

Product: Concrete and quarried materials

Production Rate: 300 tonnes per hour

Belt Speed: 1 metre per second

Location: Transfer area – awkward, obstructed area with very low clearance

Installation Date: October 2016

Problem:



ABOVE: Before image showing the customer's spillage problem due to ineffective material containment at the transfer point.

Our established New Zealand quarry customer operates a busy concrete production plant. A transfer point located on one of their existing conveyor systems is situated in an awkward area for gaining reasonable access, inside/ underneath a drive-over bin. This was making the completion of any maintenance task such as the removal of spillage, very complicated.

Our customer had used SBR Black skirting rubber to surround the chute. However it was performing poorly and wasn't containing the transferred sand and aggregate material effectively. Spillage would find its way onto the inside of the belt and subsequently cause tracking issues, which would result in further spillage and downtime in order to clean-up the area and keep it hazard-free.

Ongoing adjustment of the skirt rubber required numerous bolts to be undone, adding further inefficiencies to ongoing maintenance.



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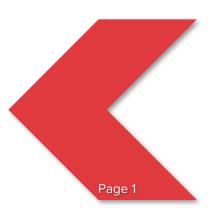
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Resolution:



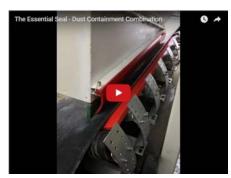
ABOVE: After image showing the installation of the product combination, outside and inside the chute. RIGHT: Video of effective transfer point in action >>CLICK VIEW

To significantly reduce the maintenance time as well as the complexity of the skirt adjustment task, we advised our customer to install a combination of belt support and skirting products.

Firstly to replace the SBR rubber skirt, a K-Snap-Loc® Dust System was installed. Minimal tools were required for installation as the K-Snap-Loc® is securely mounted using a simple length of Unistrut mount. Ongoing adjustment is no longer necessary because the engineered polyurethane properties of K-Snap-Loc® are capable of self-adjusting to the correct and precise distance to the belt to contain the pressure of transferred material effectively.

Secondly, to stop material spillage that occurs through belt edge sag where the weight of the load at the transfer point is not sufficiently supported underneath by the conveyor rollers, our customer then installed a K-Sure® Belt Support. These low friction bars replace the existing rollers and provide consistent uniform support for the belt's movement.

Lastly, to ensure that the best possible wear life performance of the skirt and belt support is achieved, K-Containment Seal was installed inside the chute at the rear and also sides. The purpose of using the K-Containment Seal is to provide an extreme wear resistant protective layer for the vulnerable edges of the chute.



"We are absolutely delighted with the performance of this transfer point, and can't see ourselves doing any clean-up or maintenance for a long time.

"Our plan now is to adopt this essential seal combination, throughout the plant."
Plant Manager.



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