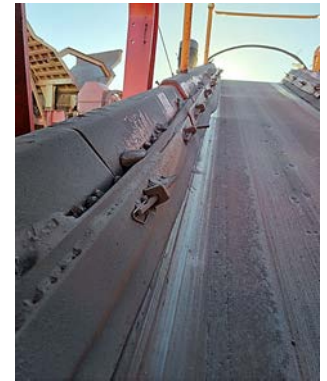


Case Study – The Essential SNAP Seal - Dust Containment Combination

Kinder Australia Product:	<u>K-Sure® Belt Support, K-Containment® Seal, K-Snap-Loc® Dust Seal</u>	
Product Category:	Conveyor Skirting & Transfer	
Location:	South Australia	
Conveyed Materials:	Iron Ore	
Conveyor Belt Width:	1200mm wide	
Production Capacity:	90m/min, 400 – 600 tonnes per hour	
Installation Date:	Feb 2022	

CHALLENGE:

- Address belt sag issues.
- Minimise dust emissions and material spillage.
- Minimise product loss and maximise profitability.
- Reduce cleaning / maintenance costs.



BEFORE PHOTOS: Duo plate hard/rubber skirting prior to Kinder's dust solution installation.

Our client operates a major iron ore crushing plant far north of South Australia, the core business depends on the efficient production of lump and various sized fines product for the operators expanding global export market.

Kinder Field Applications Specialist was contacted by the Operators Maintenance Supervisor to find an effective and long-term solution to their dust and spillage challenges.

During the initial discussions, the Maintenance Supervisor expressed major concerns for one key transfer point presenting with excessive dust emissions and spillage which in turn dampened safety, efficiency, and productivity. For many years the operator relied on duo plate hard skirt and rubber skirt to combat dust and spillage within this targeted transfer point.

The conveyor belt had the tendency to dip between trough idlers giving rocks the opportunity to get trapped between the hard skirt and the standard black skirting rubber. Conveyed rocks would also damage the belt when coming up against the next idler. Of significant concern was the high level of dust and spillage from the sagging belt between the idlers. Product loss from recurrent material spillage was costly, spillage needed to be cleaned out daily by maintenance teams diverted from other parts of the plant to minimise potential OHS hazards, further negating operational costs.

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Kinder Australia Pty Ltd

26 Canterbury Road, Braeside VIC 3195
PO Box 1026, Braeside VIC 3195

☎ +61 3 8587 9111
☎ +61 3 8587 9101

✉ conveyorsolutions@kinder.com.au

ABN: 28 006 489 238

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SOLUTION: The Essential SNAP Seal



AFTER PHOTOS:
Kinder The Essential SNAP Seal - Dust Containment after installation.

The operator turned to Kinder for our expertise in transfer point optimisation and in particular dust/spillage suppression. **The Essential SNAP Seal – Dust Containment Combination** was recommended and installed to address the belt sag, dust emission and material spillage issues.

K-Sure® Belt Support System, low friction design was very successful in resolving the belt sag problems experienced where there were few idlers installed at the impact load point. K-Sure® provided solid, stable and consistent support within the targeted transfer point. The added advantage of no moving parts translated to less repair and no ongoing maintenance costs.

Effective suppression of dust and material spillage can be attributed to the installation of **K-Containment® Seal**, providing first line defence and further enhancing the effectiveness of the **K-Snap-Loc® Dust Seal** (outer seal). Made of engineered high-performance polyurethane, K-Snap-Loc® is ideally suited to this high abrasive environment.

Prior to the Kinder installation, removal of old steel and the fitting of **The Essential SNAP Seal – Dust Containment Combination** was completed by a boilermaker and fitter during a 24-hour production shut down. The belt was later removed and changed to aid seamless fitting.

RESULTS:

- *Product performance expectations exceeded.*
- *Ample belt support and flat belt achieved.*
- *Dust and spillage OHS hazards alleviated.*
- *Maintenance and cleaning up cost reductions realised.*

K-Sure® Belt Support System has made a huge difference in keeping the belt flat and allowing the skirt to perform properly and keep in the dust. Material spillage under this belt has been greatly reduced (weekly clean) saving the crews daily cleaning in a tight and confined space and reducing their exposure to injury by not having to shovel out fine dust.

The **K-Containment® Seal** is wearing well and is easy to lower when required. Very pleased with the overall Kinder dust containment solution, the operator is now considering fitting this same system on another transfer point loading area of the plant.

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