

CASE STUDY: K-Ultra Dual® Seal

Product:	<u>K-Ultra Dual® Seal</u>
Product category:	Conveyor Skirting & Sealing
Location:	South-East Victoria
Conveyed materials:	Granite 40mm minus (99% 20mm minus)
Conveyed belt width:	900mm
Drop height:	Vertical drop of 2.5 metres
Rate:	300 tonnes per hour
Installation:	12 month wear life

Previous problem:



Based in south-east Victoria, our customer's core activity is the extraction and provision of granite based aggregates, of up to 40mm minus. Situated on the edge of reclaimed swampland, the quarried material has a **high silica content** and so the operations required effective dust suppression in order to meet **OHS regulations** in line with environmental policies as well as provide adequate working conditions for workers.

When the quarry manager started work at the site, a rubber skirting was being used to contain the conveyed product. With the heavy abrasion of the granite, and the drop height of 2.5 metres, the rubber skirt was **only lasting 2 months** before it needed to be changed out and replaced. The containment of the fine dust particles was satisfactory, but could be improved.

Left: Typical K-Ultra Dual® Seal installations.



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Resolution:

K-Ultra Dual® Seal – Key Features

- Reduces dust leakage
- Wear resistant
- Low contact pressure
- Long life
- Belt friendly
- Supplied in 10m rolls (15mm x 150mm)



Above: 3-D drawing showing K-Ultra Dual® Seal's dual polyurethane facings (red tips).

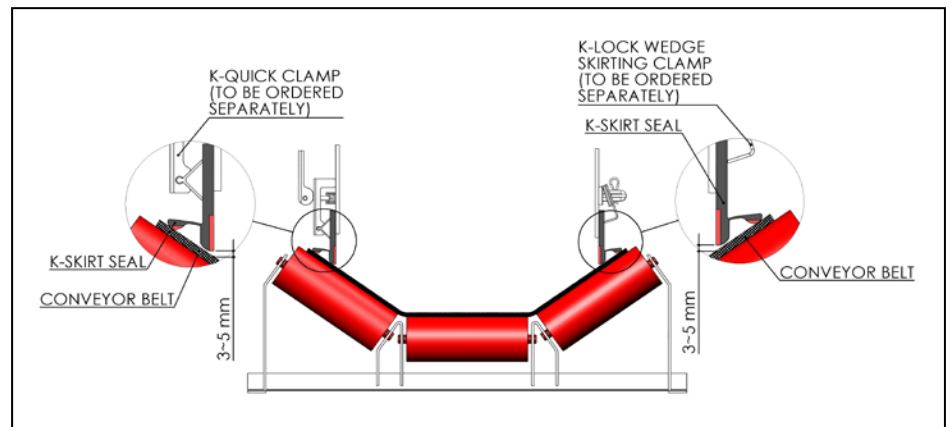
Right: Diagram showing correct installation of K-Ultra Dual® Seal using 2 different types of clamp.

Because the Quarry Manager had used K-Ultra Dual® Seal at a previous quarry, he could compare the existing rubber skirting's performance with that of K-Ultra Dual® Seal. Overall it was costing the site more money in the long run to purchase replacement rubber skirting every 2 months, and wasting valuable production time to shut down the conveying equipment to install it. It was not an efficient use of time and resources.

Having this prior knowledge of K-Ultra Dual® Seal, the Quarry Manager felt confident that there was no other product that combined the unique dual capabilities of K-Ultra Dual® Seal:

1. The interior facing wear resistant layer of polyurethane exceeds the wear life of traditional rubber-only skirting.
2. The outer anti-dust integral moulding can adapt to belt vibration and maintain the correct pressure to effectively seal the belt.

Our customer confirmed that the change over and installation was not complicated and took the anticipated 2 resources to install as part of a planned maintenance schedule. K-Ultra Dual® Seal has not disappointed and lasts approximately **12 months in regular production** and suppresses the dust more effectively.



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