

CASE STUDY – K-HD Polyurethane Side Guide Roller

Kinder Australia Product:	<u>K-HD Polyurethane Side Guide Roller</u>
Product Category:	Conveyor Belt Tracking
Location:	South Australia
Conveyed Materials:	Basalt – Quarry Products
Conveyed Belt Width:	600BW
Installation Date:	December 2015

CHALLENGE:

- Eliminate belt mistracking issues
- Improve skirting efficiency and wear life of conveyor belt.
- Resolve material spillage and maintenance issues
- Minimise damage to chute, belt and conveyor structure.



Our South Australia Quarry client is a leading producer of crushed rock and supplier of concrete aggregates and road base materials to satisfy the demands of Adelaide's infrastructure and construction industries.

Kinder's Field Applications Team were invited by the Quarry Manager to assist with identifying and resolving a belt tracking issue on their conveyor, located at the discharge end of a horizontal screen and prior to an aggregate bin loading point. The chute whilst correctly mounted above the conveyor, together with the slow material feed was not effective in projecting the material towards the centre of the chute.

The non-centralised nature of the material loading caused the conveyor to consistently track to the left-hand side, resulting in ineffective skirting and material spillage as well the associated maintenance cleaning up issues/costs. Other observations suggested by the Quarry Manager included potential damage to the chute, belt and nearby conveyor structures.

LEFT
K-HD Polyurethane Side Guide Roller Installation



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Issue: 202102

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SOLUTION:



K-HD Polyurethane Side Guide Roller



Redesigning the chute loading to the conveyor was initially suggested, but later concluded not practical or feasible for the quarry operation. Site inspections identified Kinder's **K-HD Polyurethane Side Guide Rollers** as the best option. The installation of these side guide rollers in strategic positions would act as an effective barrier to prevent further belt mistracking and successfully hold the belt in a central position.

K-HD Polyurethane Side Guide Rollers are specifically designed to control and/or correct any belt tracking misalignments. The action delivered from these side guide rollers stops the conveyor belt from tracking any further than the installed roller.

K-HD Polyurethane Side Guide Rollers feature highly durable, longer lasting polyurethane. Its concave design is far superior compared to flat steel guide rollers and helps force the belt back down onto the idler rollers, eliminating potential belt mistracking issues.

RESULTS:

- *Belt tracking and material spillage issues resolved*
- *Extended wear life of chutes and belt*
- *Promotes stable conveyor structure*
- *Product and skirting expectations exceeded.*

The South Australian Quarry operates under constant pressures and amongst the harshest materials handling environments, its initial installation over two years ago to resolve the belt tracking issues remains firmly in place with no major adjustments to report.

To date, the Quarry Manager continues to praise the side guide roller's performance, extended wear qualities and belt friendly attributes.

With product performance expectations clearly exceeded and success in maintaining continuous on-site productivity, the Quarry Manager was enthusiastic in promoting Kinder's belt tracking solution to other Quarry Group member sites surrounding Adelaide, South Australia.



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