

Case study

INCLINED SCREW CONVEYOR UPTIME IMPROVED WITH BOWMAN ADVANCED SPLIT ROLLER BEARING

KEY PROJECT STATISTICS

- Inclined screw conveyor generating high axial force
- Conveyor with a short span and a steep incline to move cement between two other conveyors
- Compact installation site with very little space around the machine
- Competitor bearing failed prematurely due to increased axial load

BEARING TECHNICAL DETAILS

- One fixed 60mm axial bearing with triple labyrinth seal
- One floating 60mm bearing with triple labyrinth seal
- Cartridges supplied for both bearings
- Installed into customer's existing pedestal from competing bearing brand



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The high axial force generated by the steep incline of this screw conveyor caused repeated bearing failure. This level of downtime was proving costly and disruptive to production schedules – as one of the UK's leading cement providers, such delays were proving detrimental. Bowman provided an Advanced Split Roller Bearing that delivered a much higher axial load capacity and easy installation, even at the drive end where space was very restricted

Matthew Simmons, Technical Manager, Bowman Split Bearings

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www.bowmansplitbearing.com



CLIENT CHALLENGE

One of the UK's leading providers of cement, ready mixed concrete and other materials was experiencing an unsustainable level of unplanned downtime due to repeat bearing failure. The equipment in question was a short span screw conveyor with a steep incline, used to move product between two other conveyors.

The steep incline created a substantial axial force which their current bearing brand could not accommodate. The bearings failed regularly, causing delays in production and costly downtime.

To make things worse, the bearing at the drive end of the conveyor was located in an area with limited access for bearing change out – meaning surrounding equipment had to be moved each time the bearing failed.

This customer needed a bearing that could withstand high axial loads, and offer fast installation even in confined areas.

BOWMAN'S ADVANCED SPLIT ROLLER BEARING



BOWMAN'S SOLUTION

The Bowman Advanced Split Roller Bearing is superior in design to other split roller bearings on the market for high load applications, and was the ideal solution for this cement processing plant. Specifying one 60mm fixed axial bearing and one 60mm floating bearing, both with Bowman's standard triple labyrinth seal, Bowman was able to solve this customer's axial force challenge with ease. During Installation, the customer commented on how easy and fast it was to change out the bearing. Bowman's Advanced Split Roller Bearings are dimensionally interchangeable with all major competing brands, which enabled our team to install the new unit into the customer's existing pedestal – assembling both bearings radially around the shaft using Bowman's easier locking mechanisms and simplified installation process. Unlike with competing brands, the two cage halves of a Bowman split bearing lock together easily using the cage rollers, eliminating the use of small and easy to lose clips and other

locking components – keeping downtime minimal for time-sensitive facilities. Bowman's Advanced Split Roller Bearings use separate rolling elements to accommodate axial loads independently of radial loads, which is of particular benefit in harsh, high load applications, like those found in the cement processing industry.



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