

Case study

# 12 HOURS SAVED ON BELT BUCKET ELEVATOR DOWNTIME WITH BOWMAN ADVANCED SPLIT ROLLER BEARINGS

## KEY PROJECT STATISTICS

- 300 ft high vertical belt buckle elevator
- 15 tons of material moving along belt every hour
- High risk workspace due to height
- Solid bearing difficult and time consuming to replace

## BEARING TECHNICAL DETAILS

- One located 140mm axial bearing with triple labyrinth seals
- One non-located 140mm bearing with triple labyrinth seals
- Cartridges and pedestals supplied for both bearings



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*Changing the bearings associated with this critical belt bucket elevator was creating unsustainable levels of downtime. We needed a bearing solution that could be installed quickly, without the need for moving ancillary equipment from around the shaft. Not only that, but the new solution must also be capable of withstanding demanding operational environments.*

HOLCIM, Onsite engineer

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## CLIENT CHALLENGE

Increased production demands placed on the cement industry globally means production facilities rely heavily on minimal plant downtime.

HOLCIM Cement, one of North America's leading cement manufacturers, were experiencing exceptionally high production losses at one of their key sites due to lengthy bearing changeouts on the head pulley of a vertical belt bucket elevator, resulting in costly profit losses.

Being 300 feet above the ground, changing the head drum bearings posed numerous risks for the engineers involved. Having to remove the motor, gearbox and all other extraneous equipment in order to remove and replace the existing solid roller bearings.

## BOWMAN'S ADVANCED SPLIT ROLLER BEARING



## BOWMAN'S SOLUTION

Dimensionally interchangeable, and capable of reducing installation times by up to 90%, the Bowman Advanced Split Roller Bearing was the perfect solution to this costly, time-consuming problem.

Reducing the downtime of the initial installation by 12 hours saw a reduction in lost profit of over \$250,000.00 with the savings on future installations of replacement Bowman Advanced Split Roller Bearings for this application expected to be more than \$600,000.00 due to further reduced downtime.

Following the successful completion of this installation and the trouble-free operation of the elevator, HOLCIM Cement intend replacing all elevator head drum bearings across this key-site.

Bowman's Advanced Split Roller Bearings offer up to 35% more load carrying capacity compared to other market leading split roll bearings – equating to at least 25% more operational life in high load capacity applications.



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