

## Success Story

Industry: Food and Beverage

Application: Feed Conveyor

**Cost Savings: € 13 309**

### Introduction

A customer reported regular bearing failures on the feed conveyor in their animal feed production plant. These premature failures led to costly downtime while engineers replaced the units. Investigations by NSK attributed the failures to ingress of hard particulates and moisture from process materials. NSK recommended the customer to replace the standard Self-Lube Units used with Triple-Lip Sealed Units. A trial was implemented and new bearings have been operating successfully for about 1 year resulting in significant cost savings.

### Key Facts

- Feed conveyor in animal feed production plant
- Frequent bearing failure resulting in bearings being changed approximately every 4 months
- Significant number of man hours needed to replace failed bearings
- Substantial machine downtime leading to costly loss of production
- NSK Solution: Self-Lube Triple-Lip Sealed Unit
- Productivity improvement
- Cost saving realised



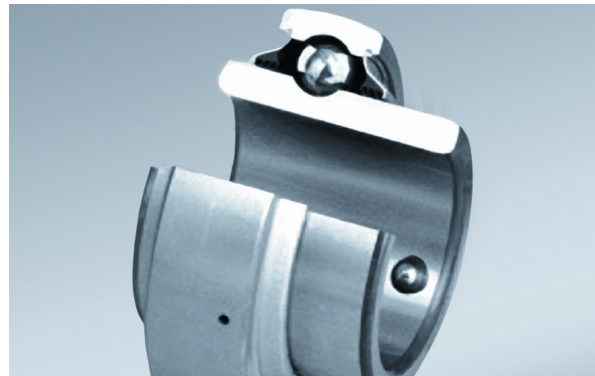
↑ Animal Feed Plant Conveyor

### Value Proposals

- NSK Application Review determined the bearings had failed due to ingress of moisture and hard particulates
- Having completed the Review, NSK recommended to replace the standard Self-Lube Units used with Units equipped with Triple-Lip Sealed Inserts
- A trial was conducted using Self-Lube Units with Triple-Lip Sealed Inserts
- The trial resulted in a substantial increase in bearing life and reduction of machine downtime

## Product Features

- Nitrile rubber triple lip, bonded to protective pressed steel shield
- Available for both setscrew and eccentric locking collar insert options
- Large size range offered, including imperial options
- Inserts interchangeable with standard items
- Longer bearing life through superior seal performance
- Extended relubrication intervals, greatly reducing maintenance costs and increased productivity of machinery
- Simple implementation; ready replacement for existing bearing units
- Mounting on the shaft with balled setscrew, providing much greater resistance to loosening



↑ Triple-Lip Sealed Inserts

## Cost Saving Breakdown

| Before   | Cost p.a.       | NSK Solution  | Cost p.a.    |
|--|-----------------|---|--------------|
|  Standard Self-Lube Units costs | € 506           | Costs of Self-Lube Units with Triple-Lip Sealed Inserts | € 238        |
|  Lost production costs          | € 12.960        | Lost production costs                                   | € 0          |
|  Engineering costs              | € 81            | Engineering costs                                       | € 0          |
| <b>Total Costs</b>   | <b>€ 13 547</b> |   | <b>€ 238</b> |