

Success Story

Industry: Food and Beverage

Application: Carrot Washer

Cost Savings: \$12,937

Introduction

A premium vegetable processing company was experiencing frequent bearing failure on a vegetable wash application. Failures caused significant downtime and reduced production. NSK carried out a bearing failure analysis revealing ingress of contamination leading to significant reduction in bearing time. NSK recommended NSK Life-Lube with Molded-Oil inserts. A trial was conducted demonstrating improved bearing life which reduced downtime, maintenance costs and increased productivity.

Key Facts

- High volume vegetable cleaning line
- Frequent bearing failure caused significant production down time and high maintenance costs
- Water and hard particle ingress
- NSK Solution: Life-Lube with Molded-Oil inserts
- Bearing life increased from 1.5 months to over 12 months
- Productivity improvement



↑ Carrot wascher

Value Proposals

- NSK engineering conducted a Bearing Failure Analysis showing ingress of contamination into the bearing causing washout of lubricant and subsequent bearing failure
- NSK engineering conducted a Process Mapping exercise of the application identifying problematic bearing areas
- NSK engineering conducted an Application Analysis of the washer application and proposed NSK Life-Lube units with Molded-Oil inserts
- A test phase was agreed which resulted in an increase of bearing life from 1.5 months to over 12 months
- The customer realized increased productivity and reduced maintenance costs

Product Features

- PBT thermoplastic resin housing
- Molded-Oil inserts (with solid lubricant)
- Martensitic stainless steel
- Nitrile rubber seals
- Available in Pillow Block, 2 and 4 bolt flanges and take-up unit housings
- Bore size 20mm - 40mm
- Corrosion resistance
- Paint free housings, preventing chipping & flaking
- Resistant to contamination increasing operating life
- Ideal for operations where fluid process is unavoidable
- No need for re-lubrication



↑ NSK Molded-Oil insert

Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Lost Production	\$12,253	Lost Production: None in 12 months	\$0
 Maintenance: 2 personnel @ \$19/hr for 2 hrs x 9 shut downs per year	\$684	Maintenance: none	€0
Total Costs	\$12,937		\$0