Success Story

Industry: Food and Beverage

Application: Milk Processing Plant

Cost Savings: $14,195

Introduction

The customer was experiencing regular bearing failure on their conveyor at a Milk Processing Plant. Due to the applicaiton and area in which the bearings were, they were difficult to lubricate. The customer had to change the bearings every 10 weeks, resulting in down-time of 3 hours each time. NSK reviewed the bearing application and suggested that stainless steel bearing inserts fitted with Molded-Oil would offer better service life. In addition it was suggested that they combine these with the additional benefits of Silver-Lube® polymer housings to provide the Life-Lube® combination. Tested bearings showed that bearing life was extended from 10 weeks to over 1 year.

Key Facts

- Milk processing plant
- Bearing replacement every 10 weeks
- NSK solution: Life-Lube® Housings with Molded-Oil Bearing insert
- Reduced downtime
- Productivity improvement
- Replacement and maintenance cost savings

↑ Milk processing

Value Proposals

- NSK application review highlighted poor bearing life and maintenance difficulty
- NSK recommended Molded-Oil inserts and Silver-Lube® plastic housings
- Increased corrosion resistance and Molded-Oil Lubrication resulted in over 12 months lifetime
- Additional benefit gained due to not having to replace shaft after bearing failure
- Technical support provided for fitting new Life-Lube® units

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 process fluid is unavoidable
- No need for re-lubrication

↑ Life-Lube® housing with Molded-Oil bearing insert

Cost Saving Breakdown

Before		Cost p.a.	NSK Solution	Cost p.a.
	Old bearing design:	$149	New bearing design:	$145
	Maintenance: 2 fitters × 3 hours@ $27/h, 5 × year	$810	Maintenance: none	$0
	Downtime: 3 hours @ $2,191 x 2/year	$13,146	Downtime: none	$0
	Additional replacement parts: 2 shafts replaced @ $117.50 each	€220	No replacement shafts	€0
Total Costs		**$14,340**		**$145**