

## Success Story

Industry: Food and Beverage

Application: Confectionary Washing Process

**Cost Savings: € 94 664**

### Introduction

A confectionary manufacturer was experiencing short service life (only 3 months) from deep groove ball bearings used in a Dürr Head Wash application. Due to the high levels of water used in the process, water ingress into the bearings caused their premature failure. This resulted in costly downtime and loss of production. NSK recommended the use of Stainless Steel bearings fitted with Molded-Oil lubrication. These are designed to perform well in wet applications. Regular monitoring of the application showed that the bearing lifetime was extended to over 18 months which represented a significant improvement on the original design.

### Key Facts

- Wash Application in a Confectionary Manufacturer
- Wet Environment causing standard bearings to fail prematurely
- Unplanned failure of the machine resulted in loss of production
- Service life only 3 months
- Maintenance time of 4 hours for each failure
- NSK Stainless Steel Molded Oil bearings trialed
- Resultant performance increased to greater than 18 months



↑ Head washing

### Value Proposals

- Investigation of the application showed that water ingress was causing premature bearing failure
- NSK recommended using stainless steel Molded-Oil deep groove ball bearings to prolong the bearing life
- The new bearings were installed and monitored with no failures for 18 months
- With these results a subsequent cost saving was presented and signed by the customer for €94.700
- Customer benefited from increased productivity and reduced maintenance costs on his production line



## Product Features

- Complete stainless steel bearing assembly ideal for corrosive environments Molded-Oil Lubrication System provides a sealed for life bearing solution
- Grease-free property with no oil refilling keeps operating environments clean
- Operating life more than twice as long as grease lubrication, in water or dust-contaminated environment
- High integrity contact-seal type
- Achieves extended maintenance-free performance as Molded-Oil provides a continuous supply of lubricant. Available for high speed applications
- Available in ball bearing, spherical roller bearing and tapered roller bearings types



↑ Molded-Oil Bearings

## Cost Saving Breakdown

Before	Cost p.a.	NSK Solution	Cost p.a.
 Bearing costs	€114	Bearing costs	€370
 Engineering costs: 2 men @ € 33/h each × 4 hours repair time × the qty of bearing replacements over the period	€1,584	Engineering costs: 2 men @ €33/h each × 4 hours repair time	€264
 Potential lost sales profit: € 3,900 per hour × 4 hours downtime over the period	€93,600		
<b>Total Costs</b>	<b>€ 95 298</b>		<b>€ 634</b>