

Customer
Soup manufacturer

Industry
Food & Beverage

Application
Cooler line roller conveyors

Rexnord Solution:
Rexnord Duralon® Bearings

Total Annual Savings
\$26,800

For a detailed cost analysis for your application, contact your local Rexnord Representative.

Savings heat up at soup manufacturer with Rexnord Duralon bearings.

Challenge

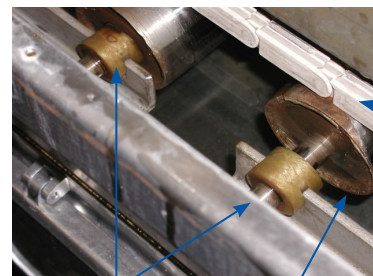
The world's leading maker of soup manufactures more than 250 varieties of product at their 68-acre facility. The plant utilizes conveyors to move product through the coolers to reduce product temperature to 100° F before labeling and packing. Operating conditions include heat and moisture, with a hot water spray (200° F) applied to sterilize and seal some types of containers as they enter the coolers. Chlorine is also used in their wash-down solutions.

The conveyor chain, a Rexnord MatTop® chain, that transports the filled containers through the coolers is supported by stainless steel rollers that weigh approximately 100 pounds. The bearings on the shafts of the conveyor rolls support the weight of the chain and the product on the conveyor. The shafts of the conveyor rollers were originally equipped with wood-based, resin-impregnated bearings that needed to be kept wet to provide lubrication. Short bearing life caused the company to try different types of bearings, with some of them wearing unevenly – or right through – because of the load and tough conditions.

The challenge for the customer was to find bearings that would provide a longer life, as their bearings would often fail within six months. Replacing the bearings required shutting down the line for between one and three days, causing lost production, maintenance and extremely high installation costs.



A soup manufacturer saved 88% in costs associated with bearings by installing durable Rexnord Duralon bearings.



Duralon Bearings

Stainless Steel Support Rollers

Rexnord MatTop Chain

Rexnord Solution

Rexnord recommended using filament-wound, self-lubricating Rexnord Duralon bearings. The durable material would withstand the combination of heat, moisture and wear. They are ideal for food processing applications because they do not require adjustment, maintenance or lubrication that can cause contamination. And, they are not affected by periodic washdowns. The company wanted to test the bearings first, putting them through the hottest and toughest applications. Eight months later, there was no wear at all. At that point, they decided to replace the remaining 1,150 bearings with the Rexnord Duralon bearings.

Rexnord Solutions and Savings in Action

While each Duralon bearing was three times more expensive than the original bushing, they delivered 88% savings per year in reduced acquisition costs, installation costs, maintenance costs and lost production due to their extended life.



Calculating the Annual Total Cost of Ownership (TCO)

Rexnord worked with the customer to determine their current cost of ownership and compared that to the cost of the Rexnord solution. Factors considered were:

- Acquisition costs of the bearings
- Installation costs
- Lost production due to downtime to replace worn out bushings
- 3 conveyors with 400 bearings each

Annual Cost Analysis Breakdown

Acquisition Costs

	Purchase Price	Expected Life (years)	Units Installed	Total
Current product	\$2,000	0.50	3	\$12,000
Rexnord Duralon Bearing	\$6,000	7.00	3	\$2,571
Annualized Savings				\$9,429

Installation Costs

	Cost/Install	Installations/Year	Units Installed	Total
Current product	\$2,400	\$2,000	3	\$14,400
Rexnord Duralon Bearing	\$2,400	0.143	3	\$1,029
Annualized Savings				\$13,371

Lost Production

Occurred during chain replacement

	Events/Year	Downtime Hrs/Event	Downtime Cost/Hr	Total
Current product	2	8	\$250	\$4,000
Rexnord Duralon Bearing	0	0	0	\$0
Annualized Savings				\$4,000

Rexnord Solution Annual Savings Summary

Total current cost	\$30,400
Total proposed cost	\$3,600
Total savings per year	\$26,800
TCO reduction percent	88%

Total Cost of Ownership Annual Savings: \$26,800