



Industry: Food

Application: Reduced Downtime for Replacing Bearings on Conveyor

Products: DODGE® E-Z KLEEN® Bearings

DOCUMENTED SAVINGS

CASE STUDY NO. 4

The Challenge

A customer had a conveyor in a washdown environment where they were using 1 1/2" standard-duty pillow block bearings. The existing bearings had to be replaced on-average twice a year, resulting in unscheduled downtime.

The Baldor Solution

We compared the existing bearings with our DODGE E-Z KLEEN bearings and were able to show an overall cost savings, which included reduced maintenance costs and the elimination of unscheduled downtime.* Best of all, the customer will need to replace our DODGE E-Z KLEEN bearings only once a year at a scheduled interval.

* See back page for details of data analysis.

The Savings

Using our DODGE stainless-steel housed E-Z KLEEN bearings resulted in an overall cost savings of \$1,142 and reduced the company's downtime, as well as maintenance costs.

The Conclusion

Since this customer's application needs were in a washdown environment, stainless-steel housed E-Z KLEEN bearings were a key factor in making this solution successful. The DODGE E-Z KLEEN bearings reduced the customer's total cost of ownership by providing a bearing that needed to be replaced only once a year.



ANNUAL OPERATING COST



Step 1 —

For each product that was analyzed, Baldor asked the following questions:

- What was the amount of time required to perform each of the following activities?
 - Lock out conveyor drive and belt
 - Remove the existing drive
 - Select and purchase new components
 - Install a new drive
- What was the number of employees required for each activity?
- What was the labor rate for each activity?
- What was the cost of parts for each activity?
- What was the replacement frequency of each component?
- What were the downtime costs (\$ per hour)?

Step 2 —

We calculated the total operating costs for the existing and proposed solutions using the following formulas:

$$\text{Installation Cost} = [(\text{Time Spent on Activity} / 60 \text{ Minutes}) \times (\# \text{ of Employees for Each Activity}) \times (\text{Labor Rate}) \times (\text{Replacement Frequency})]$$

$$\text{Downtime Cost} = [\text{Downtime Cost } (\$ \text{ per Hour}) \times (\text{Time Spent on Activity}) \times (\text{Replacement Frequency})]$$

RESULT:

Existing or Alternative Total Operating Cost	\$ 2,331
Baldor Total Operating Cost	\$ 1,168
SAVINGS	\$ 1,163

Step 3 —

We compared the purchase price of the existing and proposed solutions to illustrate an accurate assessment of overall costs.

RESULT:

Existing or Alternative Purchase Price	\$ 70
Baldor Purchase Price	\$ 92
SAVINGS	\$ (22)

Step 4 —

Based on these calculations, we were able to discover and document a **TOTAL DOCUMENTED SAVINGS OF:**

+

\$ 1,141



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