DODGE®

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 1½" 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.

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The Step-by-Step Calculation

ANNUAL OPERATING COST

Existing Bearings

Baldor Solution

Total Savings of: $1,141

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:

Installation Cost = [(Time Spent on Activity/60 Minutes) x (# of Employees for Each Activity) x (Labor Rate) x (Replacement Frequency)]

Downtime Cost = [Downtime Cost ($ per Hour) x (Time Spent on Activity) x (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:**

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$ 1,141

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