

Industry: Snacks and Coffee
Application: Overhead Bagging Line – Product Failure Elimination
Products: DODGE® Tigear-2

DOCUMENTED SAVINGS CASE STUDY NO. 18

The Challenge

A coffee manufacturing facility in New Orleans, LA was having chronic leaking issues on their gearboxes. The leaking was occurring on nearly 40 units on overhead bagging line conveyors, mounted as seen in Figure 2 below. The input seal is exposed to more oil in these mounting positions. Leaks would consistently occur within two months, and the manufacturer's maintenance team was changing out each gearbox every four to five months.

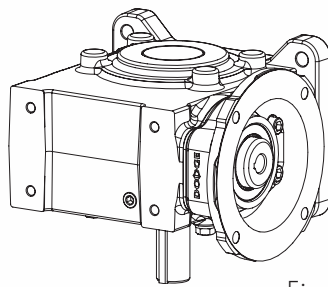


Figure 1

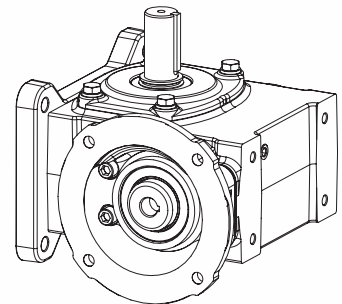


Figure 2

The Baldor Solution

The local distributor's Account Manager and Baldor Sales Engineer were called upon to resolve the issue. The product solution was the Adaptable (3-Piece Coupled) Tigear-2, and was selected for two significant reasons. First, the adaptable unit contains an input bearing. This reduces the amount of stress on the seal journal. Second, the diameter of the seal journal in the adaptable style is smaller. This reduces the seal sliding velocity by more than 60%, significantly reducing friction wear, heat, and pressure on the input seal. The Adaptable Tigear-2 gearboxes have been operating for a year, leak and problem free.

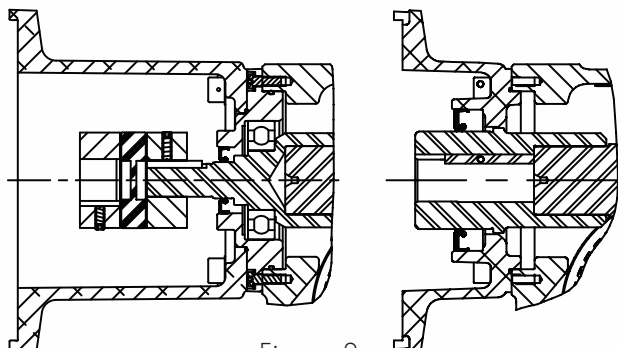


Figure 3

The Savings

A first year savings of \$81,175 was achieved, and is truly a return on investment as this is the net savings after the investment on the solution product was made. The savings were merely taken from the gearbox replacement cost. Labor costs would capture additional savings, as they were not even taken into account for this analysis. The solution also eliminated the leaking oil, which was a significant safety hazard for the facility.

The Conclusion

Proper product selection and specification are imperative to product life and operating cost. The distributor and Baldor team again illustrates the technical and application expertise that yields invaluable savings to our customers.

Step 1 —

For our analysis, our sales team asked the following questions:

- Cost of parts for each activity.
- The replacement frequency of each component.

Step 2 —

We calculated annual material (gearbox) cost for the previous gearbox vs. the solution gearbox using specific formulas:

Material Cost = Replacement Frequency x Unit Cost

RESULT:

Previous Gearbox Cost

\$129,625

Solution Gearbox Cost

\$48,450

TOTAL ANNUAL SAVINGS

\$81,175



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