

Cost Savings Case Study

Installed Base Evaluation

**Executive Summary-
Motor Evaluation**

Industry: Food & Beverage

Opportunities to reduce energy consumption

Identify potential cost savings opportunities

Provide a replacement inventory list



Call. 800-526-9328
Click. www.MotionIndustries.com
Visit. Over 550 Locations

A row of social media icons for Facebook, Google+, Instagram, LinkedIn, Pinterest, Twitter, YouTube, and the Motion Industries logo.

Executive Summary

Baldor's Installed Base Evaluation Team surveyed the electric motors installed at multiple facilities for a large beverage production company. The purpose of the evaluation was to capture information on all of the existing motors, look for opportunities to reduce energy consumption, identify potential cost savings opportunities, and provide a replacement inventory list. This report will show the details of the evaluation, and illustrate how the use of Baldor-Reliance brand products can favorably impact your bottom line.

Overview – Facility #1

Over the course of the evaluation information was collected and reviewed on 292 motors from fourteen (14) different manufacturers. The largest motor surveyed was a 1,000HP air compressor. There were (65) motors in service at 1HP, the most common rating. There were (30) 2HP motors, the second most common rating. Out of the 292 motors currently in operation, we were able to successfully interchange 258 of them to a stock product offering. 34 motors fell into an "exceptions" category and we were unable to offer a stock solution, the majority was what we would consider to be custom or production motors, and a few were missing information. These can be reviewed and quoted as special production items on a case by case basis.

Overview – Facility #2

During the survey at the second facility, the team captured information on a total of 416 motors from eighteen (18) different manufacturers. The largest motors observed in this facility were the (3) 800HP compressor motors. 1HP was the most common rating in this facility also, with 125 motors at 1HP. The second most common rating was 3HP, with a total of (91) 3HP motors. From the 416 motors we reviewed from this facility, we were able to successfully interchange 351. There were 65 motors that were special, could not be safely reached, or were missing information. Again, these would need to also be reviewed when necessary on a case by case basis.

Assumptions

We were provided an energy cost of \$.069 per kilowatt hour and annual operations totaling 5,256 hours. We assumed 100% motor loading. Actual efficiency gains and true energy costs will vary from the assumptions made in this report.

Recommendations

Due to the lower hours of operation and relatively low energy costs at these facilities, it makes the most economical sense to replace the existing motors as they fail. If all of the motors with lower efficiencies that are currently in service at Facility #1 were replaced with Baldor Super-E designs, a total of \$13,793.44 in energy reduction could be achieved annually. Facility #2 is the newer facility and has an even higher concentration of existing premium efficient motors, as a result the savings potential is lower at \$6,612.53 annually. The customer may want to consider replacing the motors with a payback less than or equal to 2 years immediately.

The customer supplied Baldor with copies of the information that was collected by the gearing manufacturer that audited portions of both facilities. We have offered Baldor Super-E motors to accompany their gearing selections. It was explained that the existing units will be replaced as they fail. Utilizing the motors selected will ultimately achieve additional energy savings, but cannot be quantified, as motor efficiencies were not collected in their audit process.

Another opportunity for cost reduction is through standardization of Baldor brand products: Baldor-Reliance, Baldor-Dodge, and Baldor-Maska. Standardization has a large and positive impact on simplifying the procurement process as well as inventory management.