

Cutting Your Costs by Not Cutting Corners

By Kimberly Eldridge, North American Market Manager—Food and Beverage Industries

How important can the right lubricant be to your company's bottom line? More than you might think. Because lubricants typically make up only 1% of a company's total operating costs, many lubrication programs do not receive the attention they deserve. However, the surprising truth is that the lubricants a company chooses can have a significant impact on high-visibility and high-value line items such as energy, labor and equipment costs.

Price versus cost

Identifying the true cost of your lubricant program is the first step in optimizing your plan to positively impact your bottom line. When analyzing your current lubrication program consider how much lubricant you're using, how often you relubricate and how much time that relubrication takes. If you already have a handle on these numbers, you're well ahead of the game. If you don't, take some time to establish a baseline so that when considering alternative products you can conduct an "apples to apples" comparison. By tracking these variables, you will come to realize that the true cost of your program includes much more than the price per kilo or price per liter of your lubricants.

Now that you have a firm grasp on the true cost of your company's lubrication program, the next step is to evaluate where savings are possible. Let's take a more in-depth look at the factors involved.

Increased productivity is the name of the game

Facilities are constantly pushed to increase productivity while reducing maintenance and operating expenses. Any time your equipment is idle, you're losing productivity. While some maintenance, including lubrication, can be completed while your line is in operation, some has to be conducted during downtime. This is not a huge inconvenience if you have regularly scheduled downtime that coincides with your relubrication schedule. However, if you have to bring a machine down once a shift specifically to relubricate, that's money taken away from the bottom line every shift. What if you were using a lubricant that extended that relubrication interval to once a month?

Consider, for example, a manufacturing facility in the food and beverage industry running nine lines, with a total operating time of 8,000 hours per year. Their current bearing lubricant requires re-lubing once a week. By using a specialty synthetic lubricant, their relubrication interval could be extended to once a month. This not only saves time but also reduces consumption.

Lubricants for Conveyor Bearings	Competitive Grease	Klüber Grease
Cost per Kilogram	\$8.63	\$17.78
Cost to Re-lubricate Bearing (assumes 3g per re-lube)	\$0.026	\$0.053
Re-lubes per Year	52	13
Annual Lubrication Cost (re-lubes per year x cost to re-lube)	\$1.35	\$0.69
Annual Labor Cost (1/60th of an hour x \$30/hr labor cost x re-lubes per year)	\$26.00	\$6.50
Total Annual Cost per Bearing	\$27.35	\$7.19

Reducing maintenance costs and operating expenses

If your plant is like most, there is probably a "wish" list of maintenance projects just waiting for the man-power and time to get them done. While even the best lubricant can't create time, an optimized lubrication program can help free-up resources to accomplish those tasks. If your lubrication specialist is able to

extend relubrication intervals through the use of synthetic, newer-generation products, you can do more with the same staff and with the same time. In our case study, the facility had the potential of reallocating almost 1,500 man-hours annually. Just imagine what could be accomplished in that time!

Used-lubricant disposal is also a variable in calculating the costs of your lubrication program. Extended lubrication intervals impact these figures. If you're using less lubricant, you're disposing of less lubricant – another savings to the bottom line. And don't forget your spare parts inventory. Proper lubrication can help your machinery and its components last longer, which means less money spent on repairs or rebuilds. Your equipment is a major investment and should be maintained accordingly.

Another factor many companies fail to consider is how much energy a company can save by utilizing highly efficient gear oils. The right lubricant can reduce the coefficient of friction, resulting in less power loss. In other words, the right lubricant equals less required energy, leaving you with a lower energy bill at the end of the month. All of which serves your bottom line.

Lubricants for Conveyor Gearboxes	Competitive Oil	Klüber Oil
Cost per Liter	\$7.01	\$14.56
Cost to Re-lubricate Gearbox* (assumes .5 liters per re-lube)	\$3.51	\$7.28
Re-lube Intervals (years)	2	4
Annual Lubrication Cost (cost to re-lube ÷ re-lube intervals)	\$1.76	\$1.82
Annual Labor Cost (.5 hours x \$30/hr labor cost ÷ re-lube intervals)	\$7.50	\$3.75
Total Annual Cost per Gearbox	\$9.26	\$5.57

*Assumes a change from PAO to PAG oil

Lubricants on your line affect your bottom line

In order to avoid the pitfalls of purchasing lubricants based solely on price, evaluate your current program and then request a comparative cost benefit analysis from your potential supplier. Simple calculations can reveal significant savings that aren't always evident in the initial cost of a lubricant. If you'd like to see how a lubricant that costs twice as much as its competition can actually SAVE money, please see the chart below. The numbers tell the story.

If Applied Over the Entire Plant...	Competitor Product	Klüber Product
<i>An average plant has 2,196 Bearings (244 bearings per line x 9 lines) and 540 gearboxes</i>		
Bearing Lubrication (annual lube cost x 2,196 bearings)	\$2,964.60	\$1,515.24
Gearbox Lubrication (annual lube cost x 540 gearboxes)	\$950.40	\$982.80
Bearing Re-lube Labor (annual labor cost x 2,196 bearings)	\$57,096.00	\$14,274.00
Gearbox Re-lube Labor (annual labor cost x 540 gearboxes)	\$4,050.00	\$2,025.00
Total Annual Costs for Entire Plant	\$65,061.00	\$18,797.04
Total Savings in Lubrication and Labor Costs		\$46,263.96

If you'd like to run the numbers for your plant, please contact Klüber Lubrication at 800.447.2238; an application engineer would be happy to visit your plant to conduct a complimentary cost benefit analysis and recommend ways to optimize your program.