Opportunities for Gear Grinders—

Insights from the Machinery Front

Tom Lang, Vice President, Kapp Technologies

Tom Lang

Economic times have definitely turned the corner in our industry. Interest in gear-related products is soaring again. However, many large companies aren't as eager to spend their own capital on new machines as they once were. Our largest corporate customers are still purchasing equipment, but they are not buying enough equipment to manufacture 100 percent of their requirements. Instead, they are turning to smaller companies to do the work for them.

Outsourcing can be successful for several reasons. Many smaller companies have wanted to get into hard finishing gears, but with the uncertainty of sufficient business to justify large investments, they stayed out of the market. The current trend is allowing these companies to enter those markets previously unavailable to them. Outsourcing allows everyone to have a share in the profits with a reduced risk of investment.

Figure 1—Automation is no longer just for the automakers. Even the smaller shops have significant opportunities to reduce labor costs and production times by integrating automation.

As an example, a longtime customer of ours had been manufacturing low- to medium-lot quantities of high precision gearing for many years. Recently, this customer was awarded a long-term contract to provide thousands of parts per month from a large manufacturer that normally produced all of its gears in-house.

In another case, we recently delivered a machine to a new customer that landed its first contract for hard finishing gears from another, larger corporation. Again, our customer was able to justify the machine purchase based on the larger company's outsourcing program.

Along with the move towards outsourcing, quite a few of the smaller companies have implemented automation technology to meet their increased production needs. American manufacturers have traditionally been very labor intensive, but in order to compete in the global market, we have had to find ways to minimize our labor content. In years past, one way to minimize labor was to build cells or groups of machines with one operator loading two to four machines. However, with many current cycle times running at 60 seconds or less, it is impossible for one man to load and unload any more than one machine at a time. One way to solve this challenge is by using efficient and affordable automation systems.

Automated systems aren't new. They were invented and first installed by the automotive industry years ago. Today, many small machine shops are adopting similar technology to improve their efficiency and consequently increase their competitiveness. Overall, the process is simple. A machine is set up to automatically run enough parts on a carousel or in a magazine for one or two hours, or for an entire eight-hour shift. Therefore, the operator can still run multiple machines, and labor expenses can be once again reduced dramatically.

Not only does automation effectively reduce labor costs, it increases machine productivity. It's not hundreds of thousands of parts that are being run on these machines, it's the few hundreds to low thousands—this is an entirely different level of automation.

Even though automation technology has been around for a decade, 10 years ago it was very expensive, and five years ago, no one was in an economic position to utilize it. All of that has now changed. Quite a number of companies are now seriously looking at automating their processes. Not surprisingly, many of these companies have relatively few employees for their output. They look first at how the process can be automated with the goal of "0" labor content. These are the companies that will prosper in tomorrow's market.

The fact is that when you have six or seven major U.S. automotive projects going on at one time, you know that the economy is on the upswing. What is different than in previous times is that only about half of these programs are slated to be manufactured by the automakers themselves. The others will be outsourced.

At Kapp-Niles, we continue to invest in new technology, and our engineers are challenged to produce new and innovative products for our industry. For example, we have recently introduced a new machine series with integrated automation. It's all about being competitive in the world market.

The Kapp KX 300P is offered with complete automation packages.

For More Information:
Kapp Technologies
2870 Wilderness Place
Boulder, Colorado 80301
Phone: (303) 447-1130
Fax: (303) 447-1131
E-mail: *info@kapp-usa.com*
Internet: *www.kapp-usa.com*