

Image provided by Bishop-Wisecarver.

Motion System Management

COMPANIES FOCUS ON CUSTOMIZATION & QUALITY IN LINEAR MOTION

Matthew Jaster, Associate Editor

Alan Haveson, CEO of Lee Linear, says a war is coming. It's more symbolic than anything else, but it may have a rather adverse effect on the spending habits of customers in the linear motion industry. It's a battle between what a customer wants, what a customer needs and

what a customer is willing to pay for.

Quality vs. cost is a looming issue in linear motion as well as many other manufacturing industries. Rising surcharges in materials and fuel costs are forcing executives to reexamine their game plan in an attempt to keep

manufacturing vital here in the United States.

For years, linear motion has been a niche market that many felt was limited in its scope. People working within the industry, however, see the products expanding to new markets every day.

"No matter what happens as we move forward, bearings, hydraulics, fluid and linear motion products will forever be there," Haveson says. "The products that are in the field have a myriad of uses and can be taken as far as the mind can let it go."

There's a strategic initiative in place to focus more on the needs of the customers in regards to quality control, technological assistance and R&D. Employees at Bishop-Wisecarver, Danaher Motion and Lee Linear are coming up with innovations to strengthen both new and established relationships with their customers. Whether manufacturing full linear motion assemblies or linear motion components, the end result is better products and greater involvement with each application.

You Pay for What You Get

Due to rising costs, many companies have no choice but to raise prices. With the economy in question, this may be the worst time to do so. Faced with surcharges, employees recently sat down at Lee Linear to address this problem.

"For us, it's not as simple as just adjusting the price," says Jim Ashworth, vice president at Lee Linear. "We've seen increases upwards of 15 percent. How do you justify that kind of percentage back to your customer? You can't do it."

The objective at Lee Linear is to help drive down the costs for its customers and make them more aware of the quality issue. While this is overlooked in many industries, it's a priority when dealing with the accuracy and precision needed for linear motion components.

"It's the things customers don't have the capability of doing, like measuring the true roundness of a shaft," Ashworth says. "Today, people shop by price instead of the quality of the item. Some companies have run shafting through a grinder only twice before sending it out to the marketplace. For us, it's important to make sure you manufacture a product that's going to give your customer the longest life out of the bearing and shafting."

Haveson compares shopping for linear motion technology to shopping for

a typical consumer product.

"Put three refrigerators side by side with different prices," Haveson says. "Many consumers would lean toward the lower priced unit. But when you really look at each one individually, do you ever consider the fact that the doors fit right, the shelves are in there, the trays work properly, the motor functions and all the components are working together? This is what we need our customers to understand about linear motion."

Haveson believes the consumer perception is to pay too much attention to

the cost. "The very first thing that comes into your mind is the cost when the reality is the cost is the last thing you need to consider, in my opinion."

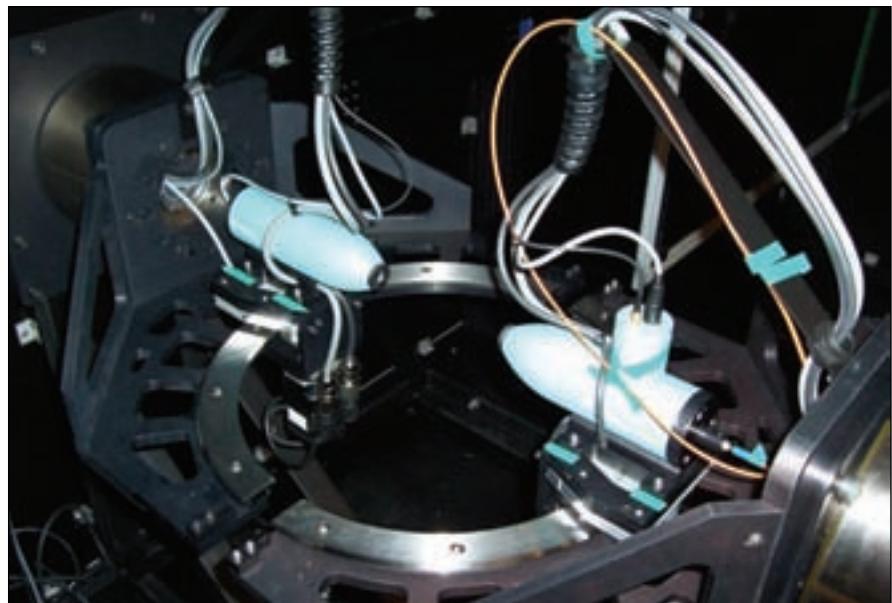
In addition to stressing the quality of its products, Lee Linear is also getting more involved with each customer request, right from the initial planning period.

"Being privy to the application and knowing what's involved can really help. We have a customer that's a printing equipment manufacturer, and they're constantly coming to us with new draw-

continued



This exercise equipment for rehabilitation uses bearings and shafts from Lee Linear.



This custom metrology equipment application by Bishop-Wisecarver includes both rotary and linear motion.



This automatic boxcar painter uses bearings from Lee Linear.

ings and asking how we can help them drive out costs. We've been doing that for years and have a good relationship with them. Probably the only way U.S. manufacturing is going to be here 30 years from now is to work directly with the customers both early and often."

Haveson stresses the importance of letting the customers know they are dealing with precision items, a crucial aspect in linear motion.

"You've got your low-end and high-end material, but you're always going to look for something in the middle of the road that's going to give you the most bang for your buck," Haveson says. "I think as the technology grows, there's going to be a need for more accuracy and longer life and customers will embrace the quality issue. They'll realize

spending more now will save them more money in the future."

Customer-Driven Technology

Danaher Motion is better serving its customers with the creation of a unique, web-based sizing and selection tool. *Linear Motioneer*ing allows users to optimize machine design and operations in just a few simple steps.

"The program basically allows users to input loads, select the accuracies you need and the life and the environment it would operate in," says Pete Castelli, engineering manager at Danaher. We'll output a solution set that generates a part number, a price, downloads a model or drawing and gets a quote for the customer."

Created in 2007, *Linear Motioneer*ing is now public for the systems divi-

sion. Its success in linear motion slides has prompted Danaher to create similar programs for other divisions.

"We're now coming to a point where customers will be able to use this technology for gearboxes, shafting and ballscrews," Castelli says. "It's a real innovative tool for those who aren't sure what direction they need to go when they originally visit the website."

Castelli notes that customization is becoming the underlining theme in linear motion.

"We're seeing a lot of price pressure and it drives you to do some value engineering," Castelli says. "The applications in linear motion are becoming much more specialized, and from the engineering side, it's just a little more resource-intense. We're much more heavily involved in customization."

Castelli thinks many companies are pulling back to their core expertise and customers are no longer looking for off-the-shelf items.

"They want a linear motion company to come in and customize the application; we're seeing this in the medical industry right now. Engineers want to make sure the right people are working on each new job."

The outlook for linear motion products at Danaher has been a bit of a juggling act. Castelli says that they have seen some decline in the packaging and manufacturing fields and some incredible uptick in the medical and semiconductor industries.

"There's some growth in areas we didn't expect and some decline in other areas. Our goal is to make sure our customer base knows it's a linear motion assembly that we're selling and this sizing and selection tool is a great focal point."

Ease of Installation

Bishop-Wisecarver has several wheel and track sizes to accommodate its linear motion assembly for packaging, small shops and other manufacturing markets. A key factor in its success is that the systems can handle harsh environments.

"Our product is insensitive to contamination," says Nigel Watson, engi-



The QT Clamp Extrusion from Bishop-Wisecarver is currently being installed in its first application.

neering manager at Bishop-Wisecarver. "It has a self-cleaning mode of operation and we've always been recognized for our overall quality in this department."

Watson, like many others in linear motion, is fighting a battle against cost-conscious customers in 2008. Many customers need a system designed for a specific load, and cost is definitely a factor.

"Our customers are not only looking for good performance, but they're also looking for high value. We're combating this with a new product that offers to use our standard wheels and track with a low-cost installation, an installation our customers can provide," Watson says.

The product in question will be featured at the Bishop-Wisecarver booth at IMTS 2008 as well as the International Woodworking Fair (IWF) 2008. Watson explains that the concept will eliminate the use of fasteners to the rails by securing the track using an aluminum clamp.

"These clamps can lend themselves to any extrusion. You have to tailor the clamp to the slot size. We're looking to do a full range of these in the near future," Watson says.

With responsibilities in the applications, mechanical engineering and quality departments, Watson's very familiar with what is being designed and innovated, and he oversees much of the development.

"Our customers are very aware of our product lines and I think the small size of our company allows us to be very flexible with their various demands," Watson says. "While the growth isn't great in linear motion right now, it's definitely a time when we're looking at our systems and responding to our customer's needs. This will certainly help the revenue stream as we go forward."

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Photo courtesy of Bishop-Wisecarver.