



AFTER HOURS
Downtown Employee Appreciation Week was held July 27-31. **A21**

Defying physics

TLX Technologies continues to follow its innovative path

BY PEG MASTERSON EDQUIST
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Neil Karolek, chief executive officer of TLX Technologies LLC in Waukesha, is not in the business of defying the laws of physics, but he works hard to challenge those laws every day.

"Most things that we produce people can't get anywhere else," said Karolek, an engineer who started the manufacturing company in his dining room in 1997 with three former co-workers of the former Applied Power Inc., Milwaukee, after their jobs were eliminated.

Since that time, TLX — which designs and manufactures electro-mechanical actuators, solenoids and fluid control valves — has grown to a business with 10,000 square feet of manufacturing space at W223 N735 Saratoga Drive, Waukesha.

Product applications range from air bags, commercial fertilizing machines, motorcycles and faucets. Customers include Badger Meter Inc., Harley-Davidson Inc. and several fire protection system manufacturers. Using seven patents and a wide range of engineering capability, TLX produces custom solenoids that can be smaller, stronger and faster to accomplish tasks previously thought to be improbable.

A solenoid is an electrically energized coil of insulated wire which produces a magnetic field within the coil. This field creates the ability to attract a metal trigger to move components in a linear direction.

"People call us with problems that are difficult to accomplish, and we give them a market advantage when we can do it in the size and power requirement they give us," Karolek, 55, said.

TLX customer Vectra Sense Technologies Inc., Cambridge, Mass., uses a tiny TLX solenoid in the sole of its athletic shoe to regulate air cushions that adjust for comfort while walking or running.

"It's the type of thing you can't just get from overseas," said Ronald Demon, chief executive officer of Vectra Sense. "We needed someone who has a strong knowledge of mechanical design and can take a product through to completion."

After obtaining \$300,000 from a group of angel investors in 1997, Karolek secured the company's first customers from the automotive industry. With the help of partner Derek Dahlgren, they designed a patented solenoid that improved the efficiency of air bags. The product caught on but was thwarted a year later when the National Transportation Safety Board changed the rate of deployment for

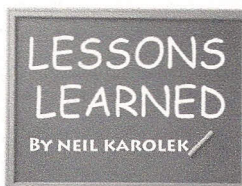


SCOTT PAULUS

Neil Karolek (center, with Shannon Omick, left, and Jean Stuibler) . . . "Most things that we produce people can't get anywhere else."

WHAT DO YOU CONSIDER YOUR FIRST SUCCESS? "In the 80s, employed at Johnson Controls, I made an engineering presentation to senior managers of Chrysler. It led to a decent order for JCI, but more to the point, changed my career path from engineering only to more of a sales and business focus. That change eventually secured management positions at various companies and ultimately the formation of TLX itself."

WHAT IS YOUR GREATEST BUSINESS CHALLENGE? "With TLX, properly managing business growth is a constant



challenge. Some new programs for next year require different material handling processes, more equipment and even a slightly different mindset for efficient production."

WHAT IS THE MOST IMPORTANT LESSON YOU'VE LEARNED? "Communicate.

Whether in sales efforts with customers or exchanges with financial people . . . unless you're extremely clear, you'll many times assume more is understood than actually is."

WHAT IS THE BEST WAY TO KEEP YOUR COMPETITIVE EDGE?

"Constantly recruit, hire and continually train the best engineering talent available. TLX sponsors a scholarship program at MSOE for just this purpose."

air bags. The company, which had just moved to its current location, regrouped and found work in the fire protection industry. During the next six years, operational costs were fortified by small business loans and lines of credit and TLX grew at a slow pace, eventually reaching 10 employees and sales of \$1.2 million in 2004.

In 2007, the company received a large order from Harley-Davidson, and Karolek obtained more than \$800,000 from the Stonehenge Capital, a Wisconsin-based venture capital fund, which helped the company accommo-

date the work. Sales increased 25 percent between 2007 and this year, and are expected to reach \$4 million at the end of 2009. The company now employs 25 people.

"I think (TLX) is a rare find in manufacturing, especially when you have the talent that this company has as well as the proprietary technology," said Kent Velde, manager of the Stonehenge. "The company is doing extremely well and growing very rapidly and their technology is very unique."

Last fall, Karolek was approached by the Wisconsin Manufacturing Extension Partner-

ship in Madison to participate in an enterprise business transformation project. As the first participant in the project, TLX works with WMEP consultants to set goals for optimum performance, help synchronize departments and implement lean manufacturing practices.

"As a company grows, the infrastructure doesn't always come along with it," said Rick Goodson, senior manufacturing specialist at WMEP. "This project puts a laser beam focus on what the company wants to accomplish in a certain time period."