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GERMAN-STYLE TRAINING FOR AMERICAN FACTORY WORKERS

By Chase Gummer
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German robotics company Festo AG wants to make American factory workers more tech-savvy.

As robotics take an ever more prominent role on factory floors, training workers and keeping their skills up-to-date has grown in importance.

The German company sees in the U.S. "a mismatch in the labor market between what businesses need and the kind of education young people are getting," said Nader Imani, chief executive of Festo Didactic, the company's stand-alone education division.

Festo specializes in sophisticated automation equipment used by manufacturers world-wide, including German auto makers Volkswagen, Daimler and their suppliers. For decades the company has trained German workers in manufacturing to use its systems, in the process developing Festo Didactic. As a part of the division's training programs, it sells educational equipment and offers seminars.

Festo Didactic, whose customers include Siemens and VW's Audi unit, is expanding in the U.S. In June, Festo bought Lab-Volt Systems Inc., a New Jersey company that makes training systems for technicians.

Mr. Imani is banking on growing demand for German-style vocational education in the U.S. In Germany companies take on full-time apprentices as young as 16 and provide both theoretical and hands-on training in technical skills the companies need. Such programs usually last two years and results in a certification that is recognized across the industry.

Festo enters a growing corner of the education industry. The company estimates the market in the U.S. at as big as \$3 billion a year.

Fluke Corp., an U.S. manufacturer of electronic measurement equipment, offers materials and works with schools to teach industrial testing and measurement. Autodesk Inc., a software developer in San Francisco, offers free educational versions of its engineering software and works with for-profit training centers.

But an unmet need for training still exceeds the supply.

Anthony Carnevale, a labor economist who runs Georgetown University's Center on Education and the Workforce, says roughly two million U.S. jobs go unfilled because of shortfalls in skills, training or education. Of those, roughly 600,000 are jobs that require more than a high-school diploma but less than a bachelor's degree.

Mr. Carnevale predicts roughly one-third of U.S. job openings through 2020 will require such middle skills, with a vocational certificate, industry-based certification, some college credits or an associate degree—but not a classic four-year college degree.

American training in these areas has deteriorated since the early 1980s, he said.

German companies with operations in the U.S. have complained for years that factory workers lack specific skills they require to get the job done. Executives and American policy makers have said the U.S. could benefit from Germany's approach to apprenticeships and on-the-job training.

"The German system coordinates employees need with what employers want pretty well," said Joseph Parilla of the Brookings Institution, an expert on competitiveness.

In Germany, high-school students can start formal training while still in school, learning trade skills directly from companies.

"We'd like to do it the German way and train high-school kids in conjunction with a community college," said Michael Schweers, the CEO of Schweers International, a German company that sells mobile ticketing systems to municipalities and police departments across the U.S. "Most of our recruits lack basic technical knowledge and skills."

The German approach is hard to transplant.

"It's a question of culture," said Tom Dueterberg of the Aspen Institute, a public-policy think tank in Washington. "Parents and teachers tell kids that going to a four-year college is the only path."

Philipp Schuster, CEO of Albrecht Bäumler GmbH's U.S. subsidiary, said the producer of precision cutting equipment failed in its attempt to manufacture equipment in New Jersey because workers lacked the necessary skills and so only handles sales and services in the U.S.

No one "wants to be on the factory floor, no matter how well-paid," he said, adding "they all want to be managers."

German corporations including Siemens, Daimler and Volkswagen have established their own vocational programs at their U.S. facilities, but for smaller companies that's not an option.

State and local governments across the U.S. have taken a growing interest in creating consortia that bring together businesses, high schools and community colleges to establish training programs in places such as Texas, South Carolina and Ohio. But hurdles remain.

Festo started designing curricula and equipment for training workers to use its pneumatic manufacturing systems half a century ago. In the 1960s, the technology was largely unknown in Germany. The training operation grew so big in the 1970s that Festo made it a separate division.

Over the past decade, the unit has grown an average of 8% a year, the company said. With the acquisition of Lab-Volt, the division will have a combined annual revenue of roughly \$200 million.

Festo Didactic said it would gain customers including local and state governments, educational institutions and private companies. Mr. Imani said the company will next target community colleges and even children in high school and younger.

"That's where we see enormous potential," said Mr. Imani. "We feel almost like missionaries at times, but there's a hardheaded business case as well."