



## Textile co. and its workers change to survive

By Andy Smith  
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*Wendy Rivera, of West Warwick, works in the medical-fiber division at Concordia, a textile company. Concordia is retraining some of its work force to produce products for the medical technology field.*

Concordia Manufacturing in Coventry is an old company that's trying to change with the times. And that means helping its workers change with it.

Established in 1920, Concordia began as a manufacturer of silk yarns, and has since branched out into a wide variety of synthetic fibers used in everything from tennis racquets to automobile airbags.

Company president Randal W. Spencer said the company had to diversify even more if it was going to survive.

But many of the company's old customers, such as Quaker Fabric Co. in Fall River, have disappeared. Seven years ago, Spencer said, Concordia had about 160 employees. Now there are between 55 and 60.

Spencer is betting that the answer lies in biotechnology, developing a range of materials that can be implanted into the human body, where they serve as “scaffolds” for the growth and proliferation of cells. The material, including the BIOFELT brand, is designed to be absorbed by the body once its work is done.

The ultimate goal is to use the material to replace diseased organs with healthy tissue. Spencer said Concordia is supplying BIOFELT to a customer about to begin human clinical trials on a partial bladder replacement. The company’s material is now being used in patients for orthopedic applications, helping to repair soft tissue such as tendons and ligaments.

Spencer said biotech products now account for about 30 percent of the company’s annual sales of about \$5 million. Down the road, Spencer sees about 60 percent of the company’s sales coming from biotech products, and 40 percent from what he calls “industrial” textiles.

Spencer said his company’s entrance into the field began when an unnamed customer came to Concordia with a very fine, delicate fiber that it wanted to turn into a fabric. Several companies had already said no, but Concordia managed to design a machine that could do the job.

“That exposed us to the market for medical devices,” Spencer said. “It also showed us the level of quality control that’s necessary. To tell the truth, we thought we were at a superior level as it was, but the standards for medical devices are entirely different.”

Since 2003, Concordia has received \$500,000 from the Slater Technology Fund, a state-backed financing source for local technology companies. In 2005, Concordia acquired the biomedical line from Albany International Research Co. in Mansfield, Mass., and has built a “clean room” at its Coventry plant to manufacture biotech products. The company received certification for medical devices from ISO, an international standards organization.

Concordia has hired some employees with biotech experience, such as Arthur Burghouwt, executive vice president of the company’s medical division. But Spencer said the company wants to retain its work force, which means extensive education and training. “We’re going out on a limb in tough times to help transform the workforce,” he said.

The average age of Concordia’s employees is 46; the average tenure with the company is 16 years.

“They have a lot of ‘hand smarts’ but they don’t always have book smarts,” Spencer said. “Working with medical devices, there are things you have to do — take notes, document what you’ve done, read work instructions. You need good basic math skills.”

Deborah Carpenter, who has been with Concordia for 26 years, started out as a machine operator and has also worked as a quality inspector and in the packing department. Now she's a lab technician, and has been attending classes at Concordia in math and reading. She's also working on getting her GED.

Among her jobs at the labs is testing the strength of the biological products Concordia makes, using a device that measures the force it takes for a plunger to burst through the fabric.

"We're taking a lot of measurements, very specific measurements," she said. "Everything has to be certified.

"We're making components for medical devices that get implanted into people," Spencer said. "If anything goes wrong, the components have to be traced all the way back to the beginning."

Nancy Roderick, human resources manager for Concordia, said the company has established a work force education program for its employees. It started with an assessment of educational levels. Most of the employees' reading skills, she said, tested at between a third- and fifth-grade level.

So last November the company started a series of classes that initially enrolled 33 employees for 12 weeks, with classes at Concordia on company time. Concordia is now on its third round of classes, offering ESL (English as a second language), math training and help with reading and writing skills. Eight employees, Roderick said, are working on their GEDs at Concordia.

Roderick said vocabulary specific to Concordia's textile business is included in the material — words such as doff (to remove yarn from a machine) and denier (a measurement of yarn density).

The Concordia education program doesn't count the specific training employees receive when they move into the medical end of the company.

"That's mostly a question of hands-on mentoring," Spencer said. "The trick is to get [employees] up to the skill levels so they can be mentored."

Spencer said about 10 Concordia employees work in the medical division, about 40 work in the industrial-fiber division, and about 10 move back and forth. As the company devotes more resources to its medical products, he said, more employees will move into that part of the operation.

As Spencer guides visitors through the Concordia plant to where the medical products are made, the need for cleanliness increases, starting with paper booties for the feet and ending with a full cap and gown for anyone who works in the "clean room."

Spencer pointed out a nitrogen generator near the clean room — because some of the company's products degrade when they hit the atmosphere, they must be stored in nitrogen.

Wendy Rivera and Norma Ramirez, both of West Warwick, are production associates working in the clean room. They started with Concordia 11 years ago.

"They talked to me about [switching to the medical side of the company] one day, and so I tried it," Rivera said. "There's a lot of training involved.... It's about a year's process, but it's still going on. Both Rivera and Ramirez have been taking literacy classes at Concordia.

Todd McKerracher, of Warwick, is a medical development supervisor, trains employees in the clean room and also helps create some of the equipment. McKerracher started with Concordia as a mechanic in 1987.

"I was always playing around with machines, and I developed some equipment for a customer that happened to have a medical application," he said.

Since then, he said, he's learned a lot about manufacturing medical devices.

"The biggest challenge involves the ISO system, because everything has to be done very precisely. There a more stringent set of standards.... I've had to learn tons and tons of stuff, mostly on the documentation. Everything has to be documented — when, where, how, who."

So McKerracher said he's been taking a lot of management and computer classes, some at Concordia and some off-site.

"I just went to a course Tuesday, a management course in dealing with multiple projects," he said. "If Nancy [Roderick] can find something that looks interesting, she'll send us."

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