



Electric green

A new national campaign is under way to pressure manufacturers of electronics to make it easier to recycle their potentially toxic products. **B2**

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JOHN BELL / DAILY RECORD

Jeffrey G. Stark, owner of Sensor Products, a small business in Madison, with some of the wide variety of products his company has been contracted to analyze with pressure-mapping technology.

Thriving on pressure

Madison business a leader in its 'niche'

BY MINHAJ HASSAN
DAILY RECORD

MADISON — Does your bed feel squishy? Do you feel unevenness in your tires and brakes when stopping for a red light? If you are a manufacturer of such products and experience those feelings during the testing process, then Sensor Products Inc. may be the place to reach out.

This successful small business, located on 300 Madison Ave., specializes in designing sensors, both electronic and manual, that detect comfort levels by using pressure mapping technology. Many of the sensors are made of film, on which pressure is applied. The comfort levels — or points of pressure — are shown on a computer screen.

Jeffrey G. Stark, owner of Sensor Products Inc., said the maps are designed to help the manufacturer to make the best product possible, placing a great emphasis on ergonomics.

"It should show uniformity in different levels of pressure to provide the most comfort," he said.

The company has worked with many companies that make everyday products. The security seals on packaged foods, the tires, wipers and brakes on the car you drive, the carpet you walk on, the putting green you hit golf balls on,



Jason Blume, project manager at Sensor Products, prepares to put a seat to pressure analysis.

among others, are all products that may have been fine-tuned with sensors provided by Stark's company.

Yes, they even test mattresses, just like "Lil' Abner" did in the old newspaper funny pages. But there's no lying down on the job at Sensor Products. Old jokes aside, mattress testing, along with the testing of many other important devices, is serious business.

After graduating from busi-

SEE PRESSURE / B2

London called, Sensor Products answered

BY MINHAJ HASSAN
DAILY RECORD

A seat-cushion manufacturer for public transportation used electronic sensors from Sensors Inc. to measure the comfort levels of its seats, and has produced new seats for the London Underground subway cars.

The company, Silicone Foam Division Inc., based in Virginia, produces seats made of silicone

foam.

Edward Claghorn, the company's market development manager, said he learned about Sensors Inc. from a trade show in Dallas attended by Sensors Products Inc. was at in Dallas. After that show, the company decided to use Sensor Products' Tactilus Bodyfitter surface-pressure mapping system to test the

SEE LONDON / B2

Pressure

CONTINUED FROM / B1

ness school at Duke University with a marketing degree, and working briefly in sales at AT&T in Bridgewater. Stark started the company in 1990 from his home in East Hanover. A friend had told him about the manual sensor, known as PressureEx, that was being used by engineers in Japan. However, the sensor was not common in the United States, so Stark decided to market it in the states.

He did so by writing a business plan to the Japanese companies that manufactured them and imported the devices across the Pacific. By

1995, when electronic sensors came to the forefront of the industry, Sensors Inc., grew and Stark moved the company to an office in East Hanover.

Now, the company has 25 employees, mostly engineers and designers. In the beginning, Stark said the annual revenues were about \$150,000. Now, the company's revenues are about \$4.5 million.

'Very niche'

Still, in general, the industry remains small, primarily catering to manufacturers.

"It is a very niche field," he said.

Stark said he's gotten the word out about his company through advertisements in trade journals and attendance at trade shows. Shows

that Sensors Products has attended include ones conducted in New York, Chicago and Las Vegas.

Jason Blume, product manager for Tactilus, the electronic sensor used to measure pressure points in cushions and pillows, said the biggest challenge is to address the different comfort levels each individual may have.

"It is totally subjective," he said. On the computer, he explained, different colors represent different degrees of pressure, with red being the highest point and black being the lowest.

The sensors are especially helpful in testing devices such as brake pads. Stark said the evenness of the pad may not always be apparent

by looking at it. With the application of an electronic sensor, though, it can be made sure the pressure is distributed throughout.

If there are any trouble spots, companies make changes to make the product better. Stark, though, admits that finding a balance between comfort, the costs of manufacturing and durability are sometimes difficult to balance.

"It's very hard to make those three coalesce," Stark said.

Still, he believes with the sensors, his company has provided devices that are user-friendly and beneficial for product development.

"It is very easy to understand with the presentations and pictures."

London

CONTINUED FROM / B1

seat cushions.

He said the company has used other companies to measure comfort and pressure levels in the past, but Sensors Inc. is probably the best, given its user-friendly hardware and software, which is Windows-based.

"They provide a huge amount of data," he said. "It makes it dramatically easier to understand what all the data means."

The benefit is that it makes arcane information understandable.

"We are not dealing with brain surgeons," he said. "We are dealing with people like you and me."

With the data that was provided with the help of sensors, Claghorn said he was able to a convincing

presentation of why Silicone's seats were better than other manufacturers.

"We were able to prove our product is more comfortable than the competition," he said. "One of the benefits of silicone is that it doesn't require additional solid materials to make seating more comfortable."

As a result of that presentation, the company has built some 22,000 ergonomic seats for it subway cars in the Central Line of the London Underground. They are also producing seat's for the subway's Victoria Line.

An estimated 500,000 commuters ride the London Underground each day.

Silicone has also worked on train seats for NJ Transit's bilevel cars.

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