

Start-up brings new designs and materials to North America's oldest team sport

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Minnesota-based upstart Epoch Lacrosse is making a splash in the lacrosse equipment market with a brand that embraces technology. The company is utilizing new designs and new materials to compete with established brands in one of North America's oldest and fastest-growing team sports.

Epoch caught the attention of elite-level lacrosse players at this year's Major League Lacrosse All-Star Game on June 26. An amateur wielding an Epoch stick strung with its Otter mesh won the fastest shot competition with a record-setting 116 miles per hour shot.

Co-founder James Miceli launched Epoch in 2011 and aims to create products that go beyond the incremental changes to legacy sticks and pockets. "We have a product you can put in your hands and feel the difference," Miceli said. "We are winning because of the research and development we are putting into the product."

A lacrosse stick is made up of three components, a shaft, a head and mesh that forms the head's pocket. Epoch started by developing a carbon-fiber shaft. Carbon-fiber can be tricky to work with and some initial attempts by other manufacturers to develop carbon-fiber shafts didn't work well.

Miceli claims his company is the first to successfully introduce a durable carbon-fiber shaft that can stand up to the rigors of the sport. The material shaves precious ounces off the weight of a traditional shaft but

is more durable. The material engineers he partners with have been able to create models with differing shaft "whip" or flexibility. Epoch's shafts will flex under load but return to their original shape and are not prone to denting and warping like metal composite shafts.

Epoch's products are designed for elite players and command premium prices. Shafts retail for \$140. Premium shafts from competitors range from \$70 to more than \$100. Epoch products are available through lacrosse specialty stores and online retailers. Epoch offers a one-year warranty on its shafts, the longest in the industry.

According to the National Sporting Goods Association, 2.8 million people participated in lacrosse in 2013, up 129 percent since 2007. The association reports retail sales of lacrosse sticks was \$62 million in 2013, up 103 percent since 2007. The growth of the lacrosse industry has also attracted the attention of some major sporting goods manufacturers.

In June, Performance Sports Group, an Exeter, N.H.-based company, raised \$126 million in an initial public offering. The company, formerly known as Bauer Performance Group, makes hockey, baseball and lacrosse equipment. It controls two big lacrosse companies - Maverik Lacrosse and Cascade (the largest maker of lacrosse helmets). PSG estimates it has 25 percent of the lacrosse market and forecasts its equipment business to grow in the high-single-digit to low-double-digit rates for the next several years.

Adam Postelnek currently plays in a local adult men's league. Postelnek, who switched to a carbon-fiber shaft two years ago, said playing with it is noticeably lighter, more flexible and durable. "It's a better experience all around," Postelnek said.

Postelnek said he is familiar with Epoch products but currently plays with a carbon-fiber stick from another company. Speaking of Epoch, he

said: "If they do things right, I think they can definitely make an impact."

"We are disrupting the market by bringing technologically advanced products to the game," Miceli said. He welcomes the competition. "We don't want to be alone. Coke needs Pepsi, and Burger King needs McDonald's."

Epoch recently released its fifth generation of carbon-fiber shafts, putting it several generations ahead of most competitors.

The company recently signed its first endorsed athlete, Ty Thompson, a Division 1 All American at the University at Albany and a rookie player for New York's Rochester Rattlers in Major League Lacrosse. A member of the Mohawk Nation, Thompson gives Epoch a connection to the Native American roots of the game.

Epoch's second product is an entirely new mesh. "We've engineered a mesh that uses a composite material that isn't affected by weather," Miceli said "It provides the most consistent pocket in the game."

Lacrosse mesh has been relatively unchanged since the 1970s, Miceli said. The traditional nylon material can absorb water, causing the pocket to "bag-out" in bad weather and change the performance of the stick. The company's Otter Mesh weighs 18 grams, half the weight of traditional mesh, and won't absorb water or change shape once it's strung to the head. Epoch recently started shipping its new lacrosse head.

Epoch has seven full-time employees, but contracts with a number of firms for design, materials and shipping. Miceli insists all of his suppliers have engineers on staff, ensuring Epoch products can fully leverage new technology and materials.

Epoch will have challenges competing against bigger companies and more established brands.

"The big challenge for them is creating a brand and creating an awareness for their products," said John Stavig, director of the Gary S. Holmes Center for Entrepreneurship at the Carlson School of Management at the University of Minnesota. "Their expertise is really in the product development side, coming up with new materials to develop differentiated products. Can they do both that and develop the brand?" Stavig suggests an alternate strategy in which Epoch would work with a branding partner.

For now, Miceli seems willing to battle it out on his own. He is working on long-term plan for Epoch to be a full equipment supplier by 2020, with its own line of pads and gloves. The goals: to have 20 to 25 percent of the lacrosse equipment market share.

Miceli wouldn't disclose revenue figures. The company started shipping products in September 2011. But Miceli said his company has no outside loans or debt and is able to finance development internally. The company isn't profitable yet, but take out the research and development costs, Miceli said, and the company would be profitable.

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