Small and flexible is the recipe for success at Innovative Textiles

Despite owning no manufacturing equipment, the two owners and six employees of Innovative Textiles have built a serious reputation in the development of technical fabrics. John W. McCurry reveals the secrets behind the company's achievements.

Based in High Point, North Carolina, USA, Innovative Textiles is a relatively new entrant into the markets for flame retardant (FR) fabrics and fabrics that protect against electric arcs, having formed in 2005. Although the company has been around just five years, it was founded and is operated by John Wasylyk and Michael Byles, two industry veterans who together have more than 60 years experience in the technical textiles business.

Wasylyk says his association with Byles goes back to the mid-1980s: "We worked together in the past at Burlington in industrial fabrics, and we had a lot of fun doing it."

In addition to their experience at Burlington, the co-owners of Innovative Textiles each have a long history of working with technical fabrics. Wasylyk, who has specialized in sales and marketing, has career stops at J.P. Stevens, Stacy Industries and Springs industries during his 30-plus years in the business. Byles was in research and development (R&D) and manufacturing and he worked at Cannon Mills and Guilford Mills during a textile career that stretches back to 1971. Byles has also operated a consultancy, Engineered Textile Resources, since 1997, specializing in helping companies develop new products in industrial, performance and medical fabrics, as well as fabrics for career apparel.

The two men are equal partners, with Wasylyk handling the sales side of the business and Byles in charge of R&D and overseeing manufacturing. "We had worked together before and we knew the market and customers, so we said let's see if we can put something together and move forward. We formed Innovative Textiles Inc in 2005 and started producing FR knits and wovens" Wasylyk says.

The industry has obviously changed considerably since Wasylyk and Byles first worked together more than 25 years ago. Many of the companies they once worked for are either now part of the industry's history or have been merged into others.

"We worked for some big companies" Wasylyk continues. "Unfortunately, today's business is not necessarily being characterized by large companies that dominate. That's part of the reason it made sense for us to come together to form Innovative Textiles as a smaller entity. We bring a lot of flexibility to the marketplace and that's exactly what the marketplace is looking for."

Different approach

Innovative Textiles is a somewhat different company in that it employs just six people and contracts out all of its manufacturing, says Byles: "We don't own any manufacturing facilities. We use other people's knitting, weaving, and dyeing and finishing equipment. There's a reason for this: we don't want to be boxed into using a certain type of machine or limited to using certain types of machines. We want to be able to go out and find equipment and processes that fit our needs. If we had four walls, we would be restrained and our manufacturing ability would be limited. We have an unlimited amount of flexibility and that makes us unique in the business."

Byles says his company has selected some strong manufacturing partners in south-eastern USA to undertake the knitting, weaving, and dyeing and finishing. He declines to identify them, but says they are all stable companies.

The process begins with Innovative Textiles' yarn partners who spin yarn to the com-

Innovative Textiles produces both knits and wovens, but specializes on the knitting side.

Innovative Textiles was founded and is operated by John Wasylyk (left) and Michael Byles (right), two industry veterans who combined have more than 60 years experience in the technical textiles business.

pany's specifications. At that point, Innovative Textiles owns the yarn and then ships it to its knitters or weavers who produce the greige goods that are then sent to the company's dyeing and finishing partner. Relationships with these manufacturers have been a key to the company's success so far.

"I have worked with these manufacturers for 13 years, so they know me" Byles says. "They know when I come into their plants and ask them to do a development fabric it's serious. Because of my relationships, if I call them and ask them and say I've got to have [45 kg] 100 pounds of a fabric, they will jump on it as soon as they get the yarn. It's our relationships with our business partners that allow us to do the things we do. Consequently, we are very loyal with our partners and we don't jump around."

Byles, with Wasylyk's input, develops the requirements customers need in new fabrics and then decides which machines and which types of finishing to use. Wasylyk's knowledge of the market and the specifications needed for certain fabrics comes into play here.

"We control everything from spinning through delivery of product" Byles says. "We do the same thing every major mill does. Our manufacturing partners really are an arm of our company. When I am in the plant, it's like I own that piece of machinery. I have control of it. That's the type of relationship we have with our suppliers."

Innovative Textiles' produces both knit and woven fabrics, but does more on the knit side. All are modacrylic-based blended fabrics.

Wasylyk says some people in the business have referred to Innovative Textiles as a converter, but he denies this: "We are not a converter. I have worked with them and converters are someone in between. We try to drive the marketplace, not react to it. We manufacture 15 different knit styles. Our expertise is in taking a product from idea to sample in four to six weeks complete with testing. That simply can't be matched by most of our competitors out there who have different motivations than we do."

Says Byles, "We started out very small and we had to prove ourselves. Everybody in the industry knew John. One of the things we did right off the bat is to prove to the marketplace we were innovators. We have been issued a patent on a high-visibility FR product and we are in the process of patenting other fabrics. We are not just here making white, sliced bread. We are making new products, and in some cases we are lowering the cost and increasing the performance of it."

Market variety

Markets include firefighters' wear and protective garments for workers in utilities, petrochemicals and general industrial wear. A potential future market is military applications. The company's diverse capabilities offer lots of options for future product development.

"We could be doing something different six months from now" Wasylyk says. "The possibilities are limitless with respect to what we do and how we do it, focusing on FR. The personal protective equipment market has been growing for the last 20 years. It has been maintaining relatively good growth compared with a lot of traditional textile markets. Most of the FR fabrics utilized in the USA are probably made in North America."

Wasylyk acknowledges that there has been a rapid growth of competition in the sector. But he says the FR market has traditionally done a good job of analysing manufacturers and separating the pretenders from the real players.

Wasylyk and Byles both firmly believe in inherent FR fabrics, which self-extinguish and leave a char layer without a melt or drip: "That's not to throw mud on topically treated products out there" Wasylyk says, but adds "working with inherent products allows you piece of mind at night because you don't have to worry about the FR mechanism going wrong."

Protecting developments

Byles says there is more emphasis on patenting products than ever before in the technical fabrics sector. Innovative

Innovative Textiles has already won itself a patent for a high-visibility flame-retardant product and is protecting several other fabrics.

Textiles itself won a patent in July 2009 for its modacrylic/cotton blend fabrics (Reliant). The company has other patents pending.

"Everyone is trying to protect their intellectual property by patenting it when they bring something unique to the industry" Byles says. "The current patent atmosphere is probably the biggest change in the industry in the last ten years."

Exhibiting through others

While Innovative Textiles does not exhibit at trade shows itself, its fabric is often on display in customer's end products. However, Wasylyk and Byles both say their time is better spent attending pertinent exhibitions or participating in associated conferences: Wasylyk was a participant in the *Techtextil North America Symposium* in Las Vegas, Nevada, USA, in 2009. The company has also been among the sponsors at the Edison Electric Institute conferences.

"We are not big on exhibiting fabric at trade shows," Byles says. "Exhibiting fabrics gives our competition the opportunity to come by and abscond with samples. We attend all the trade shows and we sponsor some of the conferences."

Engineered modacrylic cotton

Reliant is the brand name for the company's flagship line of products, manufactured from engineered modacrylic cotton (EMC) blends. According to Wasylyk "Our customers recognize that the brand is associated with Innovative Textiles. We've spent a tremendous amount of time and effort developing the brand."

Reliant fabrics are engineered to lock FR properties into the fibre. Innovative Textiles touts the fabrics' no-drip melt qualities when it is exposed to flash flame or intense heat. No chemical finishes are added to the fabric.

Reliant fabrics meet or exceed the following requirements, according to the company:

- the *Electrical Safety Code (NESC)* requirements, which sets the rules for the practical safeguarding of persons during the installation, operation or maintenance of electric supply and communication lines and associated equipment, and is published by the IEEE;
- the voluntary standard *70E Standard for Electrical Safety in the Workplace* published by the US National Fire Protection Association (NFPA); and
- two standards published by ASTM International—ASTM 1506 (*Standard Performance Specification for Flame Resistant Textile Materials for Wearing Apparel for Use by Electrical Workers Exposed to Momentary Electric Arc and Related Thermal Hazards*) and ASTM F1959 (*Standard Test Method for Determining the Arc Rating of Materials for Clothing*).

Reliant fabrics also control or inhibit the growth of odour-causing bacteria.

One of the company's latest product releases is the Reliant Xtra Dry, an engineered FR and arc-resistant base layer fabric that targets the traditional personal protective equip-

ment (PPE) and electric utility markets. The fabric efficiently wicks moisture and transports it away from the skin. These fabrics also meet the flame and textile fabric requirements of ASTM F-1506, have been arc tested to ASTM F-1959 and conform to NFPA 70E.

Wasylyk says the lightweight line was developed to give end-users the option of using a layered garment system that offers value and performance.

Size made to matter

Being a small operation, Byles believes Innovative Textiles it is much more nimble than its larger counterparts: "We don't have to sit down and have meetings with committees. We jump right in there and do it. Because we are a small company, when we have initial conversations with potential customers, we are both there or are both on the telephone with them. When we go to the next step, we already know we are going in a direction toward something we can accomplish."

Wasylyk adds "We want to stay true to the course we set, developing new products and servicing our customers. Things are challenging in a good way because there are opportunities out there. We haven't worried about losing business, we've just thought about how we could build a business with new products. That's our game plan and we have stuck to that."

Wasylyk says the technical textiles market looks at price and performance differently than it did a few years ago. He says that makes it essential for the company to be incredibly innovative. He says innovating is a fun job. "People expect excellence and not just being good."

Military prospects

Innovative Textiles is interested in entering the military market, but Byles and Wasylyk seem to think it won't be in the near term. But the two partners did previously work with large manufacturers that served the military and Byles recently attended a conference sponsored by the North Carolina Department of Commerce on how to enter the military market.

"We would like to sell fabric that ends up in a military garment" Byles says. "To do that we have to work with someone or a company that is presently dealing with the military and supplying garments, and we would have to fit in as their fabric supplier. It takes a lot of resources. We have the knowledge and we have the products, but right now we don't have the man hours to concentrate on getting our fabrics to the military."

According to Wasylyk "The military business is really intriguing, it's incredibly challenging and incredibly time-consuming, but very rewarding. Although it is intriguing to us, it probably isn't the best fit for us. We wouldn't want to take energy away from our civilian markets."

Further information

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