Business

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Furniture maker in export spotlight

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A little bit of South Delta handiwork with wood is showing up in kitchens, garages and bedrooms across the U.S.

And that has earned a Tilbury Island furniture manufacturing plant a nomination in the 2005 B.C. Export Awards, which is scheduled to announce its winners today (Nov. 25) at the Hyatt Regency in Vancouver.

Prepac Manufacturing (www.prepacmfg.com) moved from its 75,000-square-foot Richmond digs this spring to larger (110,000-square-foot) premises on Dennett Place this spring.

The reason?

"We've had sales increases of 67 per cent for the past two years running," said CEO Steve Simpson who founded the ready-to-assemble furniture firm in 1979.

Simpson declined to divulge what the privately owned operation's sales figures were, but added that his 100 or so employees work on a batch plant basis, running the manufacturing line around the clock for five- and six-day long stints.

"As a result we have yet to miss filling an order in the past two years," he said.

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Eyeing a clean power future

Delta firm hopes to be a leader in fuel cell technology

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If Shawn McGroarty had a time machine he'd invite you inside, close the door, set the clock forward about eight months and drop you off outside a Canadian Tire store.

Why such a seemingly mundane destination when you could go anywhere?

Well, McGroarty, CEO and Chairman of South Delta-based MagPower Systems Inc., (www.magpowersystems.com) believes that in just a few short months we could be in a new, important era in clean power technology.

In June 2006 MagPower hopes to deliver to the retail market a fuel cell battery that will significantly outlast regular batteries and have no harmful effects on the environment.

That's right. Fuel cell power, right from a Delta manufacturing plant, straight to the hardware store shelves and then into everyday home gadgets like TV remotes, flashlights and even hearing aids—anything that uses batteries.

But is that wishful thinking when other, higher profile fuel cell makers are still struggling to perfect their technology and are years from entering the retail market?

McGroarty says no.

While he understands the skepticism, McGroarty said he is confident his firm will be the leader in the marketplace.

"A lot of fuel cell market analysts have really punched a number of companies hard in the gut," he said. "Why? Because many of those companies have made a lot of noise in the past about their products, but haven't been able to back it up.

Philip Raphael photo

Shawn McGroarty's company has developed a fuel cell he hopes will someday soon be powering your small appliances.

"We adopted the philosophy that you can't do it all, and that you wait until you've got things right. And that's what we've done.

"We're ready."

Ready to build on the recent success MagPower has already achieved when it inked a licensing deal with a company in Asia to turn out a larger version of its fuel cell.

At the end of October, MagPower announced it had signed a deal worth $22 million to manufacture and distribute its fuel cells in China via a Hong Kong company, Dragon EnviroPower International Ltd.

The plan for the equipment called the MAFC (Magnesium Air Fuel Cell)—which is about the size of a pair of kids lunch boxes duct-taped together—is to power household appliances such as hair dryers, coffee makers and slow cookers. In addition to its low impact on the environment it would bring a power source to remote and infrastructure-poor areas, all at a fraction of the cost of traditional, hydrogen-powered fuel cell technology.

> ***Every time I see this stuff, I get a charge out of it. I come from a corporate background, so this is all like magic to me.***
>
> Shawn McGroarty

A similar deal has been made to serve markets in Australia and New Zealand.

So what makes all this possible?

McGroarty explained his company has developed a fuel cell that harnesses electricity created by the chemical reaction that occurs when magnesium reacts with saltwater and oxygen.

According to the company's claims, a special process it has patented inhibits the buildup of hydrogen during the reaction—the big engineering stumbling block—dramatically increasing the efficiency of the fuel cell.

"Regular fuel cells that run on hydrogen are about 35 per cent efficient. Ours is around 90 per cent," McGroarty said.

The process is also cheaper because it does away with the use of some exotic materials found in some other traditional fuel cells.

The MAFC will retail for about $350, about one tenth of a hydrogen fuel cell equivalent.

And MagPower's batteries are expected to cost the same as traditional ones, but last three to four times as long.

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Company wants space in Tilbury

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"Every time I see this stuff work, I get a real charge out if it," McGroarty quipped as he hooked up a lamp, neon sign and assorted electrical devices to the MAFC unit in MagPower's modest offices next door to the Delta Town & Country Inn. "I come from a corporate background, so this is all like magic to me."

But those seeing beyond the razzle dazzle have included one potentially large client—the U.S. military. It is interested in using MagPower's devices to power all manner of communications and GPS equipment for its troops, and hopefully cut down on the need to dispose of an enormous number of spent batteries.

Applications to aid development of Third World countries also abound, McGroarty said.

That's why MagPower has teamed up with a power efficient LED lighting firm in Houston, Texas, to explore ways to provide lighting in remote areas, and a water purification equipment maker to develop a system that could deliver drinking water powered by a MagPower fuel cell.

But what about the "Holy Grail" of many fuel cell makers—transportation?

That may be some way off in the future since power requirements for a vehicle are beyond MagPower's current capabilities. But car manufacturers are still interested in what the Delta firm could provide.

"We have a 50-year NDA (non disclosure agreement) with both Ford and Volvo, so I can't say too much about what they're planning," McGroarty said. "But they want a fuel cell that can deliver four kilowatts. That's enough power to run pretty much everything in the normal sized home. So you've got to think that there's something pretty innovative they're planning to put into their vehicles sometime in the future."

At the moment MagPower's research work is divided between a small lab in the South Delta office, as well as at the NRC (National Research Council) facility near the University of B.C., and at the university itself. Plans are to bring all of the labs and production facilities together in one place. And the company is currently eyeing the Tilbury area for a 40,000-square-foot manufacturing complex.

So why do this all in Delta?

"You want to know the real reason? Both me and (company president) Bruce Downing live in White Rock and we didn't want to fight tunnel or bridge traffic to get back and forth from work," McGroarty said.

"So, we chose a place that was as close you could get to Vancouver without either of those bottlenecks."

All of the North American production is planned to be done out of the new local location—employing about 100 just for the manufacturing side—to ensure quality control.

Markets elsewhere in the world would continue to be supplied by equipment made under license.

"We kept it (supplying the North American market) back because we wanted to do it ourselves," McGroarty said.