

# PROFILE

## PH WINDSOLUTIONS, INC.

By Russ Willcutt



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**AS WIND TURBINES GROW** larger, so do blades, requiring ultra-efficient manufacturing processes that ensure the highest possible structural integrity. And with blade-manufacturing facilities under construction throughout North America and around the world, PH Windsolutions, Inc., is in a position to streamline their process from the first day of production.

“With our fully automated Powerhinge mould-closing system, manufacturers no longer need to assign multiple cranes and highly skilled employees to position, close, and open the moulds,” according to Ian Comishin, director of operations. “That means you can apply those important assets elsewhere, utilizing your resources more effectively and increasing productivity tremendously.”

A previously existing company was founded in 2003 by Gabriel Mironov as Powerhinge Automation in Montreal, Canada. He relocated to China in 2007 where he founded Red Maple, which was eventually purchased by Gurit. After his departure PH Windsolutions was then launched as a separate, unrelated business entity in that same city by some of the former employees. Led by Marc Robitaille—who is president, and a longtime expert in developing cutting-edge industrial control and robotic systems—the company has ranged beyond its flagship Powerhinge device. Mould makers can now integrate the Powerheater heating system, hydraulic mould clamping, alignment systems, and other mould tool sets, providing blade makers with a higher level of manufacturing consistency.

Described as a company that solves problems—“we will take on any automation challenge that comes our way,” Comishin says—PH Windsolutions is constantly gathering feedback and comments from its customers, improving and modifying its existing designs and seeking new ways of making blade manufacturing easier. This is enabled by the company’s dedication to innovation, enhanced by the Canadian government’s support of research and development activities.

“We’re lucky to be in Montreal because there are some really great universities nearby, and that puts us in contact with all of these bright young engineers and technicians who are graduating and looking for work,” Comishin explains, “and we’re also contacted by

program directors seeking internships for college students, so we get to know them even before they graduate. And Canada has a great program for supporting research, in that we receive salary support for hiring graduates who are involved in R&D.”

In addition to these talented design and application engineers, the company’s technicians are so knowledgeable that PH Windsolutions is one of the few mould tooling providers allowed access to blade-manufacturing facilities around the world, particularly in its territories of Europe and North and South America. “These companies are very protective of the manufacturing processes and techniques they’ve developed,” Comishin explains, “but we’ve made clear we’re committed to providing confidentiality, and that our only intent involves learning all we can about their particular application in order to optimize the design requirements. We want to make sure the equipment we provide suits our customer’s needs perfectly.”

The response to this approach has been remarkable, he says, since many blade manufacturers had simply resigned themselves to paying the extra costs associated with the manual nature of these processes in the past. Since the Powerhinge is completely automatic and extremely easy to use, the experienced crane operators and equipment once required to manipulate and position the moulds can now be assigned to other tasks. Once Comishin and his colleagues make potential clients aware that this automated technology exists, they immediately realize how the system will revolutionize their manufacturing process and how quickly it will pay for itself. “It’s been our experience that these companies are grateful to have the opportunity to learn about this technology,” he explains, “so the reception has been quite gratifying, and we now have more than 200 systems in service worldwide.”

As this industry continues to grow and evolve, efficient manufacturing is just one factor that will help lower the cost of energy derived from the wind. Forward-thinking companies such as PH Windsolutions are invaluable resources in that endeavor. “Our primary focus is on developing blade manufacturing concepts that require less labor,” Comishin says, “while at the same time delivering the highest level of quality and repeatability.” ↵