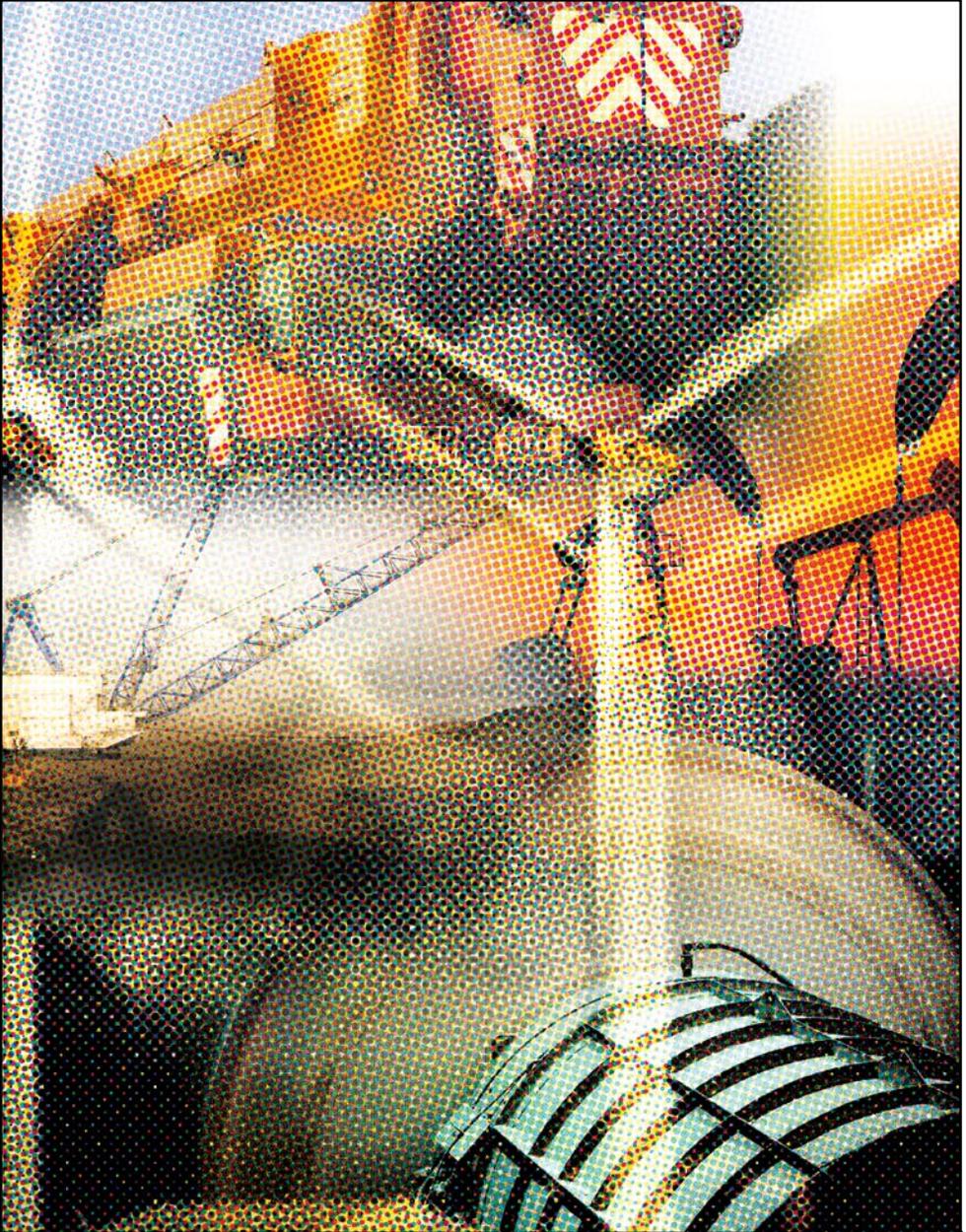


# PROFILE

## CAROLINA GEAR & COMPONENTS LTD.

By Russ Willcutt



In order to manufacture the large, dependable gears required by the wind-energy market, experience is a must. That's something this company has in abundance.

## AS THE WIND INDUSTRY CONTINUES

its upward trajectory throughout North America, some gear manufacturing companies will be better prepared to service the market's needs than others due to the nature of their experience and existing capabilities. One such company is Carolina Gear & Components, or CGC, which has spent years manufacturing large components for mining, metal processing, and heavy machine tooling applications, in addition to many others. But the company possesses other advantages as well, according to its managing director, Cosmin Carpinisan.

"CGC used to be a division of Moventast, and I'd worked with them for many years before we had the opportunity to purchase its open-gearing assets in December of 2008, and then all of its wind component manufacturing assets almost exactly a year later," he says. "We've since become their number-one supplier of wind components in North America."

A mechanical engineer by training, Carpinisan has worked in all aspects of gearing, including design, sales, management, and manufacturing. This wealth of knowledge and hands-on experience is helping establish the company throughout North America, where the bulk of its customers are located, and carrying its reputation into potential new territories such as South America. At present, however, CGC is busy filling the orders it currently has in place, while expanding its facilities and capabilities.

"When we began operations in 2008 we had seven people working here, all of whom came from Moventast," Carpinisan says, adding that the company is based in Cambridge, Ontario. "Now we're up to 20 experienced gear manufacturing professionals, and we also have a new addition under construction that will double our facility space to 50,000 square feet. And while we subcontract services such as heat treating, we oversee the entire operation, machining the blanks and handling the finish grinding ourselves.

We are dealing with large course-pitch pinions and also gears up to 10 meters for the mining and wind-energy markets, and all strictly according to AGMA, ISO, and DIN standards."

Carpinisan finds himself on the road quite often these days, traveling to meet with clients to observe their operations and determine how CGC can help them to meet their project goals, and also to help with fixturing and tooling. This close communication provides a deep understanding of how a customer approaches its work, what markets it serves, and what its needs will be in terms of delivery times. In addition, his broad experience in gearbox design and gear manufacturing allows him—along with his colleagues—to make suggestions that can lead to greater production efficiencies. CGC can also help its OEM customers to redesign for increased horsepower or improved load ratings and gear life.

Once the company has moved into its new quarters this summer it will continue exploring new markets in addition to those in which it is currently active, including minerals processing, cement, pulp and paper, environmental/recycling, rubber, sugar processing, telecommunications, and cranes, in addition to those previously listed. It will also keep working to build its reputation in the wind-energy industry as a supplier of quality gearing that takes project deadlines and commitments seriously. CGC also plans to explore additional capabilities and services such as gearbox maintenance, repair, and retrofitting.

"What I've learned over the years is that you should listen and gather information first," Carpinisan says, "and once you have a true understanding of the customer's needs that's when you can begin to apply your own experience to the situation. And between all of us here, we have a great many years of combined experience in manufacturing gears of all types, no matter the size, material, or end use." ↵