



# PROFILE

## BROADWIND ENERGY

# ‘WE CAN WELD ANYTHING’

In 2016, Broadwind was able to put more than 100 tower sections on barges and ship them across the Great Lakes. (Photos courtesy: Broadwind)

### **BROADWIND ENERGY**

**FOUNDED**  
2003

**HEADQUARTERS**  
Cicero, Illinois

**WEBSITE**  
[www.bwen.com](http://www.bwen.com)

*Broadwind Energy is a precision manufacturer of structures, equipment, and components for the wind industry, clean tech, and other specialized applications.*

By KENNETH CARTER ▀ Wind Systems editor

When a company makes a name for itself by handling massive steel objects, it seems only logical that those objects would involve the creation of wind turbines.

That skill has been the cornerstone of Broadwind since its inception — welding.

“We were a welding company,” said Matthew Boor, director of business development with Broadwind. “We welded a lot of things. But our bread and butter is building the giant towers for the wind OEMs you’ve heard of. That’s what we’re best known for, and at the core of that is obviously handling massive steel objects and welding them. We can cut metal, roll it, weld it, paint it, and then assemble as needed.”

### 3,000 TOWERS AND COUNTING

Broadwind is one of the first producers of 100-meter turbines in the U.S., and is one of the largest producers of utility scale tubular wind-energy towers in North America. The company has built more than three dozen designs for leading turbine OEMs and designed proprietary internals for others. The bottom line is Broadwind has built more than 3,000 wind towers since 2008, according to Boor.

Broadwind specializes in the production of wind-turbine towers as well as fabrications for other industries. It has production facilities in Manitowoc, Wisconsin, and Abilene, Texas. The company fabricates heavy, next generation wind towers that are larger, more technically advanced, and designed for multi-megawatt turbines.

And Broadwind has been very busy when it comes to those towers, according to Boor.

“As far as I know, we’ve built more different models of towers for more customers than anyone else,” he said. “Other companies have probably built more towers than us, but not for as many different customers and not as many different types.”

### BROADWIND’S OTHER COMPANIES

A few other companies fall under the Broadwind Energy umbrella, and they also take on wind-industry functions, as well as duties for other industries, according to Boor.

“We own Brad Foote Gearing in Cicero, Illinois. They can cut gears and rebuild gearboxes,” Boor said. “That business is also part of Broadwind Energy, but it was a much older business before they became part of the family, so to speak. A chunk of their business is for wind companies.”

Brad Foote Gearing builds and repairs precision gears and gearboxes for wind, oil and gas, mining, and other industries. Brad Foote has produced more than 4,500 MW of wind gearing and is focused on the manufacture of custom engineered systems and gearboxes. It has been in the gear business since 1924.

Another Broadwind company is Red Wolf Company, LLC



Broadwind is one of the largest producers of utility scale tubular wind-energy towers in North America.

based out of Sanford, North Carolina, according to Boor.

“Red Wolf is a really interesting company with distinctive capabilities,” he said. “Their core competencies are procurement, pre-assembling, and kitting items as diverse as tooling, testing equipment, consumables, and raw materials with a degree of accuracy that borders on prescience. We then prepare these for shipping, building custom crates and outfitting containers that can be job hopped, if desired.”

Red Wolf custom packages and ships for different industries and is best known for its work preparing tooling and critical spares kits for gas-turbine outages, according to Boor.

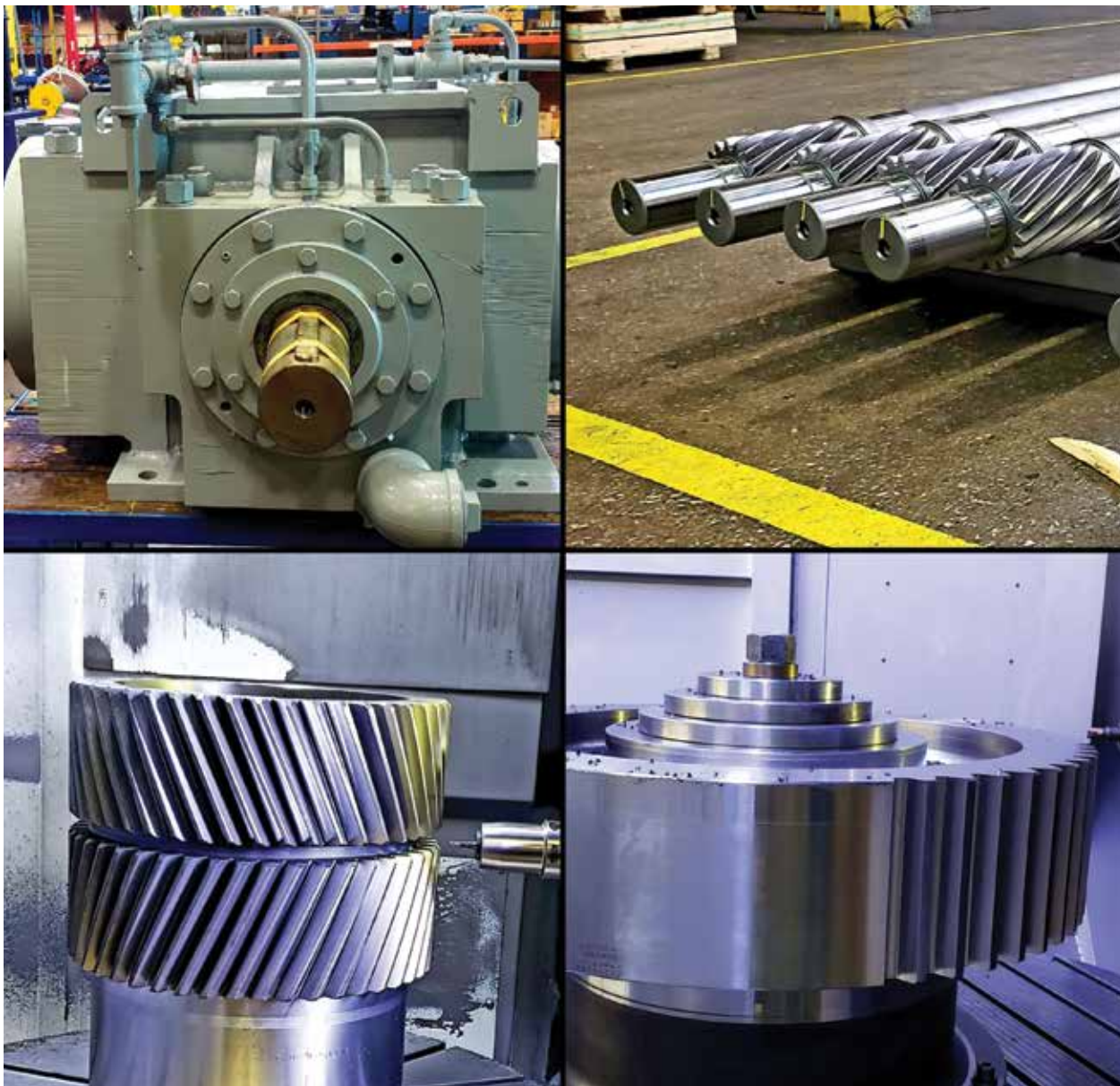
“If you’re going to work on a gas turbine in, say, Algeria, Red Wolf finds everything that you’ll need to do that job, packages it in a way that makes sense, and then gets it ready to ship overseas in such a way that it can actually stay on site for months — even years — without degradation,” he said. “Then, when they uncrate, everything’s there ready to use. It’s accounted for. This business has a place in wind as well as solar construction, really any pre-construction services.”

### MORE THAN JUST TOWER CONSTRUCTION

In addition to manufacturing towers, Broadwind also makes lifting beams that pick up the towers, according to Boor.

“What it comes down to is that we can weld anything,” he said. “It can hardly be too large. We can pick up extremely





Broadwind owns Brad Foote Gearing, which builds and repairs precision gears and gearboxes for wind, oil and gas, mining, and other industries.

heavy things, and that lends itself to a lot of really interesting opportunities. Our paint booths are huge. They're 25 feet wide by 25 feet tall by 135 feet long."

Broadwind has four of these paint booths — two in Manitowoc and two in Abilene, according to Boor. The Manitowoc plant has the capacity to produce 350 wind towers per year, while the Abilene facility can fabricate almost 200 annually.

Making towers for a diverse number of major players in the wind industry has allowed Broadwind's knowledge base to increase exponentially over the years, he said.

"We have a ton of experience, and that's helped us learn how everyone builds towers," Boor said.

## CUSTOMER SERVICE

That experience has created a strong relationship with Broadwind's customers and how the company helps them accomplish their goals.

"Sometimes it's as simple as an RFQ," Boor said. "It'll start with that, or sometimes we have existing relationships with turbine OEMs. There's a quoting process that we follow, and again, having such a deep bench of experience helps us determine if a process or design is derivative of something else. For example, this design looks like so-and-so's design from eight years ago, and we know exactly how to do this."

Once all of that is in place, Broadwind has developed an in-house APQP process that ensures customer specifications aren't overlooked, according to Boor.

"We developed this a few years ago, and the simplest way to put it is it's a massive checklist that makes sure we're not missing specifications or measurements or tests that have to be done along the way," he said. "We're making sure that we meet all the customer's specifications. That sort of thing just comes from being in this business for 10-plus years. You can't cheat experience."

## MAJOR ACCOMPLISHMENTS

That experience has also brought about many accomplishments both inside and outside the wind industry, according to Boor.

"Last year, we partnered with Goldwind and actually built what was, at that point, the tallest wind turbine in North America," he said. "On the heavy fabrications side of the business, we built the tallest flagpole in North or South America, and that stands at an insurance company in Sheboygan, Wisconsin. It's over 400 feet tall."

Broadwind's Wisconsin facility is on a peninsula that leads directly into Lake Michigan, which gives the company deep-water access to the Great Lakes and beyond. That advantage has allowed the company to further its expertise with wind, according to Boor.

"In 2016, we did a project with Gamesa — at that point they were just Gamesa — to actually put more than 100 tower sections on barges and ship them across the Great Lakes," he said. "That was a proud moment, and it took a lot of coordination to make that happen."

Boor added that he would expect Broadwind's Wisconsin facility to be in a perfect position to be involved with the expected rush of offshore wind projects gaining momentum in the Atlantic and even the Great Lakes.

## LOOKING TO THE FUTURE

All-in-all, Boor expects a bright future for Broadwind.

"We are excited about the future, specifically determining what the future looks like in a post-PTC world in a couple years," he said.

That will be a challenge, according to Boor, but he said he thinks it will ultimately be a positive one.

"We live in an energy-hungry world," he said. "Energy consumption has slowed down, but it still continues to grow. Certainly, as tower sizes increase and turbine output increases, there's more need for larger machines and companies that have larger capabilities to make these things. I like how we're positioned for that." ✎

**MORE INFO** ➤ Contact Matthew Boor at [Matthew.Boor@bwn.com](mailto:Matthew.Boor@bwn.com) or (920) 482-3543.



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