

SOLUTIONS

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A Powerful Partnership

McClarin is helping Gamesa power the wind energy industry

In 2005, Gamesa, one of the top three wind energy developers in the world, was looking for a supplier who could manufacture a component that was 30' x 12' x 12'. In working with McClarin Plastics, they found not only a supplier who could manufacture the needed component, but a true partner who could take ownership of the project and serve as an extension of the company. Today, the partnership between Gamesa and McClarin continues to thrive.

The Project

When Gamesa set up shop in the United States, they wanted to nationalize their North American supplier base. They found a supply partner in McClarin Plastics, who is now a Tier 1 supplier to Gamesa with full responsibility for producing and assembling components.

McClarin Plastics manufactures about five nacelles and spinner nose hubs each week for Gamesa. The pieces are made of fiberglass using the vacuum infusion method which enables them to produce such large parts; the nacelle is 30' x 12' x 12' and the spinner nose hub is 12' in diameter and 8' high.

Because the process is very visual, action can be taken to correct any problems as the part is being molded. The vacuum infusion process also produces a stronger part than the traditional spray-up molding process.

Getting Ready

This project doubled McClarin Plastics' fiberglass operation. To accommodate the new production volume, they built a new 35,000 square foot manufacturing facility. Team members traveled to Spain to observe an existing supplier, then spent another three months readying the facility. Another two weeks were spent with a team from Spain learning the fabrication process—

through two interpreters. The project added over 20 new jobs to the York, PA area.

Added Value

McClarin delivers a completely assembled part to Gamesa's Philadelphia facility, ready to be integrated into their final assembly. For example, the completed nacelle is made up of the 30' x 12' x 12' housing, about 19 other fiberglass parts that McClarin produces, as well as the assembly and integration of almost 600 additional parts that include heaters, lights, and sound absorption components. McClarin developed a comprehensive Bill of Material (BOM) to manage and organize all of the component parts.

Gamesa only has to issue one purchase order and McClarin takes care of procuring the components. McClarin's involvement in all these tasks, which extend beyond those of a traditional manufacturing supplier, is a reflection of the important role they serve as contract manufacturer for Gamesa.

The Companies

Gamesa, based in Spain, is a global company with facilities in Asia, Europe and the U.S., which is currently their largest growth market. Their U.S. headquarters in Fairless Hills, PA supplies wind energy needs east of the Mississippi. Their U.S. operation is sold out for the next three years.

McClarin Plastics has produced about 280 units for Gamesa in just over a year. They are the only North American nacelle and spinner nose hub supplier. One Gamesa official commented that McClarin is a true partner in every aspect—from technical to engineering to communication.

Wind Energy Growth

Wind energy is the fastest growing power source worldwide on a percentage basis with the annual growth rate exceeding 30%. As of 2007, the United States' wind capacity has

McClarin's role as contract manufacturer for Gamesa adds greater value to the partnership.




Interior shot of the spinner nose hub that McClarin produces for Gamesa. The piece is made of fiberglass using the vacuum infusion method.

increased about 56% since 2004. The growth stems from highly incentivized programs which mandate that utilities purchase a certain amount of renewable energy, increasing incrementally over the next decade.

Pennsylvania's Role

To be a major player in the wind energy arena, Pennsylvania is targeting three key areas: 1) wind farm construction within the Commonwealth of PA; 2) manufacture of wind energy components for any wind projects in the U.S. or abroad; and 3) sales of renewable energy to the grid.

Pennsylvania enacted the Alternative Energy Portfolio Standard (AEPS) Act 213 of 2004. The AEPS ensures that 18% of the state's electricity will come from alternative energy sources by 2020.

McClarin Plastics is proud to be a part of this progressive initiative in Pennsylvania which affects our country and our future. 

Rosemary McAvoy contributed information for this article. McAvoy is the President of Datamar, Inc. in Harrisburg, PA and Vice-President of The Xcelon Group, Inc. also in Harrisburg. She holds numerous professional appointments and directorships including Founder and President of Alternative Fuels Renewable Energies Council as well as holding several Presidential appointments.



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Global Certification Underway!

McClarin employees are participating in the GSPC Program

McClarin Plastics is participating in a pilot program for international thermoforming standardization known as Global Standards for Plastic Certification (GSPC). This very prestigious and internationally recognized certification program seeks universal recognition of plastics workers' knowledge and capabilities. Employees are evaluated on their understanding of machine fundamentals, function and operation; plastics materials and handling; safety procedures along with other critical skill sets needed for efficient production.

"We are the first thermoformer in North America to participate in this program," said Todd P. Kennedy, RED Plant Manager. "Until McClarin, the program had no curriculum for thermoforming certification, so international consultants were called on to create it."

Over half of the employees who were chosen for the GSPC Program have successfully been certified. The remaining participants are finishing their units and will be certified at the beginning of 2008.

Begun in the UK 14 years ago, the program is the world's only structured apprenticeship certification for the plastics industry. The rigorous program consists of pre- and post-assessments, computer-based interactive training, formal company training

developed in consultation with certification authorities, on-the-job training and a formal review and examination process. When the seven units have been completed, verifiers from UK Polymer Training, the international certification agency, will visit McClarin to administer oral and manipulative tests to validate all standards have been met.

Each week, the participants meet with Rebecca Hill, McClarin Quality Engineer, to go over their progress. During the week, they complete exercises outlined in their Program Portfolio. These processes are self-paced and self-evaluated. Because the certification process is integrated into their daily work routine, the lessons will become part of their structure and retention will be stronger.

"For McClarin, this program will put everyone on an even knowledge base and create ownership in the company and greater pride in our work," said Hill.

Todd Kennedy, McClarin CEO, adds, "This ultimately makes anyone capable of working anywhere in the company so no one is pigeon-holed into one job for the rest of their career. For our clients, this certification means longevity in the supply chain and high quality and consistency in production."



Above: McClarin employees take part in a weekly GSPC Program session with Rebecca Hill, McClarin Quality Engineer.

McClarin received a state cooperative grant from the Department of Labor & Industry through the Pennsylvania College of Technology for 30 employees to participate in the pilot program. McClarin's goal is to eventually have all of their employees complete the certification process.

"This program will put PA in the forefront of the plastics industry. Governor Rendell has put together a strong team in labor and industry making the state a leader in plastics as well as other industries. It's initiatives like these that drive manufacturing," continued Kennedy.

About 400 companies nationwide are participating in the certification program. Seven of those companies are located in Pennsylvania. The GSPC program is sponsored by the

Pennsylvania College of Technology and the PA Plastics Initiative. 

**"This program will put PA in the forefront of the plastics industry."
— Todd P. Kennedy**

Paying It Toward the Future

Here's the latest scoop on how McClarin is reinvesting their profits back into the company and "Paying It Toward the Future" for the benefit of both the company and our customers.

The latest facility expansion project to be completed at McClarin was done at the fiberglass plant. The facility recently underwent several employee-friendly upgrades including an additional 5,000 square feet dedicated to employee locker room, break room and training room space. Offices were also added on two stories, along with old office renovation.

More company improvements are planned as we forge ahead into 2008. Check out future newsletter issues to learn more.

 **McClarin Plastics, Inc.**
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