



Most Innovative Plant

2010 Crystal Achievement Award Winners

Atlantic Windows

Port Elgin, N.B., Canada

From its beginning in a former community center in 1983 to its modern multiple facilities today, Atlantic Windows takes pride in being a leader in lean and green manufacturing, says Greg Dickie, director of operations. A philosophy since day one that "We can always do better!" drives the company to continuously improve within its plants in Port Elgin, N.B., and Amherst, N.S. Whether it is a vinyl window, a steel entrance system or any of its other products, the company continues to look for ways to manufacture products more cost effectively with enhanced quality and shorter lead times while considering the impact on the environment. There are five distinct elements that contribute to the innovation of the company's plant—a people and change-oriented culture, commitment to quality, belief in continuous improvement, integration of new technology and obligation to sustainable manufacturing.



Atlantic Windows sees its associates as key to its success and empowers them to share ideas to enable the company to improve.

People and Change Oriented Culture

Atlantic Windows sees its associates as the key to its success. "Every associate, supplier and customer is encouraged to share their ideas," says Dickie. "Good ideas quickly become reality, implemented with no fear of failure. It is this sense of empowerment that enables Atlantic Windows to improve at a constant and rapid pace."

With a headquarters in a small rural community with a population of just over 400, the leadership team realizes the importance of being an employer of choice and to ensure that associates work in a safe and healthy environment. With standard working hours between Monday and Friday and a rare need for overtime, Atlantic Windows understands the value of a work-life balance. New equipment and tools are purchased to minimize the possibility of injury without necessarily having a return-on-investment. Incentives are offered to drive metrics and appropriate behavior. For example, up to four "merit days" (paid vacation days) can be earned annually for good attendance. Employees also share in the company's success through an annual profit share program.



The manufacturer began its "lean journey" in 2003, using the 5S to organize its plant. Atlantic Windows continues to revisit and use 5S to maintain improvements.

Commitment to Quality

Executives admit that it may sound cliché, but they emphasize that Atlantic Windows manufactures products of the highest quality and performance. Vinyl window products are all tested to CSA specifications and are in the process of being tested to the new harmonized standard. Over the last few years, its entire window offering has been redesigned, all manufacturing processes have been reviewed intensely, and process checks have been established to guide associates to take accountability for their own quality.

Employees also know that Atlantic Windows has adopted more stringent standards than those set by the industry to ensure customers are satisfied with their investment. These actions resulted in a 22 percent reduction in after-sales service calls.

Belief in Continuous Improvement

In 2003, Atlantic Windows began "its lean journey" with a phased approach that was taken to avoid

“the flavor of the day” mentality, Dickie reports. With 5S being the foundation of all other lean tools, the company started with 5S to organize the plant and it continues to revisit and audit 5S to maintain any improvements. The next step was to look at flow.

Departments were converted into value streams, owning the product manufacturing cycle from start to finish. Manual assembly tasks were studied then balanced, allowing for benches to be put together to create one piece flow lines while eliminating WIP. The company also greatly reduced unplanned equipment downtime by changing its maintenance philosophy from “if it isn’t broke then don’t fix it” to Total Preventative Maintenance. With this reliability, WIP was further reduced and equipment was integrated with the manual flow lines.

Lean is not considered just a mindset for manufacturing but an approach to improve all facets of the business. Waste has been identified and eliminated in many of business processes including order entry, scheduling, shipping and accounting. WIP reduction techniques have been used in the company’s requisition process for IT and facility projects. Supermarkets, kanban and just-in-time strategies are used to manage materials and reduce inventory.

Along the lean journey, the company learned that failure is a key component to continuous improvement. Without the tolerance for failure, there is no risk and therefore less opportunity for rapid gain. As the journey continues, the results have been impressive. Since its beginning, the company has seen a 52 percent increase in sales, 21 percent lower labor requirements, a 26 percent reduction in inventory, a 97 percent order fill rate, and a delivery lead time that exceeds the industry standard.



In addition to investing in its people, Atlantic Windows is committed to looking for the latest in manufacturing technology from around the world.

Integration of New Technology

A customizable ERP system allows the flexibility to adopt new and improved manufacturing strategies. Through the software, paperwork has been reduced by more than 80 percent, further supporting lean and green efforts. Equipment is sourced from all over the world to ensure the company has the latest technology to enhance manufacturing. Supplier partners are challenged to improve their equipment to reduce cycle times, develop new technology and adapt to the manufacturer’s lean systems. The integration of technology is a key factor to both growth and improved consistency for Atlantic Windows.

Obligation to Sustainable Manufacturing

Atlantic Windows has always taken pride in being the leader in energy efficiency and sustainable manufacturing, officials state. Being the first manufacturer in Atlantic Canada to offer Energy Star-certified products, it now offers 37 window systems and more than 600 entrance systems that are Energy Star certified. Beyond providing its customers products to help improve the energy efficiency of their homes, the company’s dedication to sustainable manufacturing is reflected in its day-to-day operations.

Being a lean organization, Atlantic Windows strives to reduce, reuse and recycle wherever possible. In 2009, more than 500 metric tons of materials such as PVC, wood, glass, cardboard, poly, aluminum, metal, paper were diverted from landfills. The company looks to partner with suppliers that use less or reusable packaging, have recycling programs and/or use recycled content in their raw materials.

By adopting new policies and implementing energy efficient products, plant energy consumption has been reduced by 5 percent and heating costs are down 15 percent. All fluorescent lighting in the plant has been replaced with high-performance premium T8 lighting. Coupled with a “lights out” policy – simply put, when the room is not being used turn off the light – this has reduced energy consumption related to lighting. Staggering the start-up of industrial production equipment and a new compressed air storage system has also contributed to reducing energy usage.

