



GAME CHANGER:

Groupe Lacasse and the Art of Setting New Standards

by Rob Kirkbride

Laminate sheets are neatly stacked to the ceiling, and a massive 40-ton robot called Goldorack efficiently picks the sheets and feeds them into another automated machine that cuts, shapes, and edge bands them into pieces that will become Groupe Lacasse furniture. The robotic equipment knows just how to cut the shapes to get the most out of each board, leaving almost no scrap or waste.



The laminate line at the Groupe Lacasse factory in Saint-Pie, a hamlet just east of Montreal known as the Furniture Capital of Quebec, is a model of efficiency and productivity. Simply put, there is no other factory like it in North America.

The company is pinning its success on this state-of-the-art facility to improve quality and boost efficiency. "We changed the entire machining side of the plant with new technologies and automated machinery," said President and Chief Executive Officer Sylvain Garneau. "We are not 100% done yet, but the plant's capabilities changed entirely in terms of volume and types of products that we can do."

Groupe Lacasse has three plants in Saint-Pie: the main laminate factory, which has 400,000 square feet under its roof, and two smaller locations where the company produces seating and acoustic panels.

Each week, the company packages between 4,000 and 4,500 products that will be shipped to customers across North America. And during a typical week, Groupe Lacasse produces about 25,000 to 30,000 pieces of laminate.

Groupe Lacasse specializes in laminate furniture. It can be cut, shaped, and drilled just like wood, but with the advantages of affordability, a highly durable surface that stands up to the office's rigors, and nearly unlimited choices for customization and ease of cleaning.

Not all laminate is created equally, especially when it comes to sealing the edge to the board, called edge banding. Groupe Lacasse uses FUZE edge laser technology, which creates a permanent edge and microbial seal that makes the furniture safer, and more attractive. This is another benefit of the company's investment in its manufacturing process. While most companies with laminate furniture use glue to adhere edge banding, Groupe Lacasse uses a laser that creates a permanent seal.

While all the benefits of the new machinery are certainly important, it was critical that any change not affect the company's ability to handle special requests from its customers. After all, Groupe Lacasse is known for it, as almost 45% of everything the company manufactures is special.

The Groupe Lacasse Process

When a product is ordered and enters the system, it is assigned a code that follows the piece of furniture through the factory. The company's production cycle is about a week, so products being built in the factory for a customer order today generally ship in the following five to seven days.

The process returns to Goldorack, which picks the right stock based on the order cut to specification. Goldorack is responsible for collecting the material when it arrives, placing the stock in one of the 160 locations in the racking system, and feeding the cutting lines.

It moves very easily, and the robot knows exactly where each panel is in the storage system. There is a database in its program where, for every movement that it makes, it keeps track of. The robot knows the size, color, and location of every laminate sheet in the system.

"It gives us lots of flexibility in terms of production," Garneau said. "It means that regardless of the parts, we don't have to do setups. The other thing it improves is the quality of the products. It's the newest technology, so the quality of the parts you get is impeccable."

Since the computer driving the manufacturing process calculates the size needed, cuts are made to maximize the output of each sheet, eliminating almost all waste. Barcodes track each piece throughout the manufacturing process, ensuring the right parts are binned for the right project—this is important when it comes to assembly.

The facility hums along with precision, more like a ballet than a factory. Parts move on to a drilling line, aligning the assembly holes used to build the furniture.

The factory itself is incredibly clean and orderly. Sawdust from the manufacturing process is collected and reused. Since waste is minimal, it fits in small bins until it is time

to be recycled. Groupe Lacasse works with a company to collect the small amount of waste and sawdust, which is later used to generate energy. The environment is important at Groupe Lacasse, and all its products are BIFMA LEVEL® 1 or 2 and GREENGUARD certified.

Saint-Pie is a small town, so attracting and retaining good employees is critical to its operations. The investment in new equipment was made, in part, to address changes in the company's workforce. Since many employees have spent decades with the company, building efficiency into the system was important. As more of those long-term employees retire, the company can still maintain production levels through efficiency. Simply put, the computerized equipment takes fewer employees, which is important in a tight labor market.

"In 2014, 2015, we recognized we had a group of people who would be leaving for retirement," Garneau said. "At that time, we had difficulties recruiting good, quality people. So, we looked at the factory and asked ourselves, how can we improve this? We began visiting factories around the world and invited manufacturing consultants to visit us in Saint-Pie. And we said, okay, we need to revamp the entire machine part of our business, and we need to find a technology that will meet our ability to customize and be even more competitive. But that needs to be done without interrupting production for one day. You have to understand, the plant here was already full of products and equipment," he said.

The process of uninstalling the old equipment and reinstalling the new machinery took over three years, though most of it was completed during the pandemic when production slowed. Garneau praises the company's workforce for being open to change and learning to operate the new equipment.

At this point in the production cycle, a batch of parts has been made to create the furniture, but it remains unassembled. The parts move on to a kitting area where



all the pieces and components come together. Again, it is an automated process designed to keep quality at the highest level. The parts are separated into bins for the assembly process. When a worker picks the pieces from the storage area, bins light up green, showing the worker exactly which components (screws, drawer pulls, hinges, locks, etc.) are needed to build the piece, eliminating error and increasing speed.

After the products are assembled (or if they are shipped unassembled, prior to boxing), they are inspected to make sure the quality is up to the company's high standards, and everything is included in the order. The company's Quality Management System (ISO 9001:2015) ensures top-notch craftsmanship, while its Environmental Management System (ISO 14001:2015) reflects its dedication to sustainable practices.

Even the company's boxing system is high-tech. Instead of buying standard-sized boxes and filling the space with packing material, boxes are cut to order depending on the size of the finished product. When a signal is received from the packaging line, sheets of corrugated material in different widths create a bespoke box for each product to reduce waste.

Planning for Success

In 2016, Groupe Lacasse assembled a dedicated team to spearhead the modernization of its factory. Patrick Nadeau and Alain Bellefleur were both put in charge of managing this important project from the beginning. Later that same year, joining this collaborative initiative, Xavier Colin, now Manufacturing Engineering Manager, took on the challenge of making sure the new production technologies would perform with the utmost efficiency and quality.

The team also had to find the right production workers to operate the high-tech equipment. "It's not enough to simply automate equipment; you need to have smart people who can run the equipment. When an error appears on a monitor, our operators make the first diagnosis and must find a solution, so it has completely changed how we work in the plant," said Colin.

The machinery, made by IMA, is unique and the first of its kind not only in Canada and North America, but in the world. Colin, who came to Groupe Lacasse from France, was familiar with IMA and its products. Still, with any major project like this, there is a learning curve. It took time to install the products — a team of more than a dozen workers came from Germany during the pandemic to build and test the machinery — and get everything up and running without skipping a beat. Colin has helped do just that. The factory is running at efficiency levels that would have been unimaginable just a few years ago. Automation has allowed the company to build better products even faster without losing any ability to create specials.



From Factory to Finished Product

Of course, a world-class factory is only half the equation. A company also needs fantastic products and good furniture design and, Groupe Lacasse offers both. Visiting one of Groupe Lacasse's showrooms is a great way to understand why all the work went into the manufacturing updates.

Groupe Lacasse has a broad product line with solutions for almost every product segment. The company competes head-to-head with the largest companies in the office furniture industry, but since it is smaller than the majors, it must be smart in the way it approaches the market. That's where Groupe Lacasse's ability to handle custom furniture requests gives them an advantage. Major office furniture makers might miss out on projects where custom furniture is needed simply because it might be more challenging to produce than it is worth. Smaller manufacturers might not have the ability to handle the custom order either. With its high-tech manufacturing and product know-how, Groupe Lacasse can take on custom orders with no problem,

said Innovation and Product Marketing Manager Dominic Aubry.

Groupe Lacasse carefully designs products that can be changed and adjusted based on a customer's needs. Since the design of the product may change because of customer demand, it is designed to be tweaked. Their production team is highly flexible and sensitive to customers' requests.

"That's how we bring value to the market. We transform those panels, and we bring that value. We try to make things in a smart way," he said. A parametric software makes it easy to go from concept to completion. When a customer orders a product, the software handles all the complications.

"We provide the best value in the industry with great design and world-class manufacturing. That's what makes Groupe Lacasse the successful company it is today," he added.

