



A Quick Start to Cryogenic Freezing for J&G Foods



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Small Company, Big Vision

J&G Foods has been carefully watching the trends in case-ready meats at the retail supermarket level, seeking the right opportunities to expand its business. Investments in plant improvements, people, and equipment, including a new freezer technology, helped launch the company into growth mode. And when the timing was right, they were ready.

J&G Foods is a meat processor in Sutton, Massachusetts, with customers in three principle sectors: the food service market such as colleges, restaurants, and healthcare facilities; home delivery companies who buy vacuum-sealed frozen meats to sell directly to customers; and retail supermarkets. J&G Foods determined it wanted to expand further into retail markets and had identified opportunities and niches where they could succeed with case-ready meats.

“These days, skilled meat cutters are hard to find. They’re just not available like they used to be,” explains Joe Piperato, president of J&G. “Retail stores are under tremendous pressure to offer a greater selection of meat products, including new cuts, a variety of grill-ready marinated meats, both conventional and special feeding and raising protocols, a medley of pack sizes, and so forth. But retailers can’t do it all, so they have to turn to centralized facilities.” J&G is now fully prepared to meet those demands and grow its own business at the same time.

Finding the Right Solution

Because freezing and chilling are so important to his business, Piperato, who has many years of experience under his belt, knew that improving the efficiency of J&G’s freezing process would take them one step closer to their expansion goals. Enter Air Products’ Freshline® QS tunnel freezer. Designed with simplicity and economics in mind, this freezer was integrated quickly into J&G’s production line.

J&G uses the Freshline QS tunnel freezer to process a variety of meats, including steaks, hamburger and veal patties, Salisbury steaks, and pork specialty items. Everything J&G sells is ready-to-cook, both marinated and plain cuts of meat. Finished goods, chilled or frozen, are shipped according to customers' specific requirements.

The simplicity of the new freezer is a key feature for J&G. "The Freshline QS freezer's automated control system and prerecorded recipes make the freezer simple to start up and easy to operate for both our maintenance and production teams," says Wayne Morin, maintenance manager at J&G Foods. "This simplicity makes it feasible to train more operators to run the system."

The innovative design, with open and easy access to the freezer's internal parts such as the plastic belt, is also very appealing to Morin. "Hygiene and safety are paramount at J&G," says Morin. "Cleaning is quick and easy, which reduces our downtime during product changeovers." He also points out that the simpler design with fewer moving parts means fewer maintenance issues. "And, from a safety perspective," adds Morin, "the oxygen sensor is a huge plus and something we didn't have before. This is critical to working safely with nitrogen."

Matt Pollard, production manager at J&G, likes the freezer's small footprint because it frees up valuable floor space. "The production floor is very expensive real estate," explains Pollard. "With this new freezer, we can get the same amount of product through in half the space, so we have extra floor space that can be used to make something new or different."



Proven Benefits with Cryogenic Freezing

In business since 1999, J&G has been using cryogenic freezing from the beginning. “We believe in cryogenic freezing because of the advantages of product quality. Cryogenic freezing is top-notch, and the benefits are long proven,” says Piperato. “With ultra-fast liquid nitrogen freezing, we get a higher yield and the customer gets less shrinkage when the product is prepared. It’s a mutually beneficial freezing option.”

According to Duane Gleason, an Air Products food technology specialist who has spent the last 25 years helping food processors like J&G with their freezing applications, cryogenic freezing with liquid nitrogen has many advantages over mechanical systems like blast freezing. “Due to the extremely cold temperature of liquid nitrogen, food is frozen within minutes. This quick freeze not only contributes to a higher yield, but also enhances product quality,” explains Gleason. He further describes how a faster freeze results in the formation of smaller ice crystals, which causes less damage to a product’s cellular structure. This enables food products to maintain moisture, which not only improves texture, color and flavor, but also translates into smaller weight losses from dehydration.



Opportunity Based on Collaboration

When J&G first contacted Air Products, they were primarily interested in lowering their nitrogen costs. But being a solutions-minded company, Air Products asked a lot of questions to gain a deeper understanding of J&G’s business.

“Instead of just responding with price quotes, Duane Gleason [Air Products] first came in and observed what we were doing with nitrogen freezing,” explains Piperato. “He took notes and made it a point to understand what we needed to get done, what was missing and what our goals were.”

With nearly 50 years of experience in the food industry, Air Products’ food freezing experts were able to identify ways to help J&G optimize their operation.

“They are the whole package, and it comes through in many ways,” says Piperato. “It’s not just pull up the truck, drop off the gas and leave. We know that we can pick up the phone and call, ask for advice, have technicians here without much delay. They are a complete service company.” Piperato also values the fact that Air Products designs its own equipment, which helps the company specify real solutions that meet its customers’ needs.

Adds Morin, “Right from the beginning, they paid a lot of attention to what we needed, and they were here at all our crucial times, working around our schedule. They made sure our start-ups went smoothly and helped us understand the equipment and how to operate it.”

J&G’s pioneering spirit, along with Air Products’ innovative technology and support, has allowed the meat processor to remain successful and continue to grow and change with the market. And Air Products is committed to helping them every step of the way.

tell me more

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