



Liscio's Italian Bakery moves into a new plant, six times larger than its previous site, and doubles volume in two years, while continuing to meet its goal to be ...

Consistently Fresh

BY LAURIE GORTON

Nothing beats fresh Italian bread with its crispy crust and tender crumb for making the sub, hoagie, grinder and cheese-steak sandwiches that define “good eats” to residents of Philadelphia, New York City and New Jersey. The key attributes of the bread being “fresh” and “crispy” ... and consistently so.

Thus, when partners James Liscio and Charles (Chad) Vilotti considered a bigger location and more productive equipment for Liscio's Italian Bakery, consistent quality topped their list of expectations. The bakery must be able to bake the same loaf and same roll, batch after batch, day after day, to meet the exacting requirements of its customers, big and small. That single criteria shaped the partners' decisions.

A year-long search led Liscio's to the right location at Glassboro, NJ, a site offering 36,600 sq ft on a 5¼-acre lot. Following a fiscally conservative plan, the owners kept their existing 6,000-sq-ft shop in operation giving them almost two years to renovate the building and simultaneously research, commission, install and startup the equipment. Total investment, including new automated equipment, amounted to \$4 million.

At Easter 2004, Liscio's transferred its production operations to the new facility. “When we moved into the new plant, we planned to grow 20% each year for the next five, but we accomplished 100% growth in two years,” said Mr. Vilotti, the bakery's vice-president and general manager. “Preparing to move required some difficult financial choices, but we got here, and it was worth it.”

“There are a handful of bakeries like ours in this area,” explained Mr. Liscio, the company's founder, president and director of operations. “And each one makes good bread, but what sets us ahead of our competitors is our



▲ Partners James Liscio (left) and Chad Vilotti build their bakery's reputation on fresh delivery of Italian bread and rolls. Pastries, cookies and cakes sweeten the picture, too.

service. For us, it's simple: Customers like consistency, and we like to give it to them.”

INTO AUTOMATION. Having outgrown two smaller locations in eight years, Liscio's owners knew they had to step up from mostly manual production to more automated systems, especially for the bakery's core products: Italian bread and rolls. This led them to add a bulk flour storage and handling system, a computer-sequenced and automatically supplied twin-spiral mixer, a sheeting-style dough makeup line, a 60-ft tunnel oven and an ambient-temperature spiral cooling system. All these technologies were new to Liscio's.

With the new equipment, production could double in volume immediately, but continuity of basic methods



was also important. “In technology, we tried to duplicate the methods we always used but with higher capacity machinery,” Mr. Vilotti said.

“We laid out this bakery properly to grow, taking into consideration the production time constraints of our products,” he continued. “With vendors such as Gemini Bakery Equipment Co., we are able to pick the equipment to maintain the quality and consistency we require of our products.”

Return on investment also entered into the equation. “We had to assure business continuance,” he added.

“The biggest difference the new bakery provides us is better consistency in the products we deliver to our customers,” Mr. Vilotti continued.



▲ A 60-ft tunnel oven now bakes the majority of Liscio's signature Italian bread and rolls, creating a crispy outer crust and tender inside crumb.

ITALIAN SPECIALTIES. Located in South Jersey, about a half-hour outside Philadelphia, Liscio's serves customers in a 100-mile radius of the bakery. This encompasses metropolitan New York and Philadelphia, the New Jersey suburbs of both cities, down along the Jersey Shore through Atlantic City and into portions of Delaware and southern Maryland.

Current sales come to more than \$7.5 million annually for the bakery's 75 varieties of Italian breads and rolls, along with cookies, pastries and decorated cakes, including wedding cakes. Flour usage stands at 80,000 lb weekly. It's a good thing that the Glassboro plant has enough equipment capacity and floor space to double, or even triple, current output with current equipment.

“We are a business that specializes in customizing items for customer needs, and that includes our three company-owned retail bakery-deli shops,” Mr. Liscio said. Two of the shops are located in Washington Township five and six miles away and the other in Glassboro, a little more than a mile from the bakery. These shops provide the company with what Mr. Vilotti called “instant feedback” about consumer preferences and tastes — tricky topics for most small wholesalers to monitor.

Both partners have a background in baking, but when they first met, they sat on opposite sides of the desk. Mr. Liscio started his baking career while still in high school. At age 15, he found a job with a small mom-and-pop bakery-deli. While away at college, he worked in another bakery. After graduating, he knew he wanted to open his own bakery, which he did in 1994.

“I set up a small retail bakery to sell bread, rolls, pizza and strombolis,” Mr. Liscio said. “I found 60 to 70% of my customers asking for something sweet in addition to the bread we offered. So, I got into cakes, pastries and cookies for the retail shop. I also wanted wholesaling to be part of the business from the start.”

The bakery's first location occupied just 3,000 sq ft in a strip mall. “With growth in wholesale production, I moved to a 6,000-sq-ft building in 1998,” Mr. Liscio related. Soon, that site filled to capacity. It was about then that he recruited Mr. Vilotti as his business partner.

“With the business growing, it became hard for me to manage both production and administration as-

pects,” Mr. Liscio explained. “I'm more of a hands-on person, and I like production. Around the time I opened the second bakery, Chad was selling his business.”

Vilotti Food Ingredients was one of Liscio's suppliers. During the early 1900s, Mr. Vilotti's great-grandfather opened one of the first Italian bakeries in the region. Mr. Vilotti started working in that business while in college and ran the company for 20 years, eventually transforming it into an ingredient distributor. In 2000, he sold the company to Puratos Corp. with a 1-year noncompete clause in the agreement. Mr. Liscio saw his chance to add Mr. Vilotti's business management experience to his own production expertise, and today he and his partner joke about the year-long job interview they conducted.

Mr. Vilotti handles administration, purchasing, finance, distribution and sales, but his knowledge of baking also assists the company in its production and engineering ventures. “When I joined James, I found that being on this side of the business was more appealing to me,” Mr. Vilotti noted. “I like to think that I surfed in here on the crest of a wave that's still breaking.”

The two men share business and family values. Indeed, their desire to spend time with their young families (James has five sons and Chad three sons) determined the location of the Glassboro bakery. They found an appropriately sized building that formerly housed a Farm & Country store just a few miles away from the retail shops. It is also “just around the corner” from home, according to Mr. Vilotti. Both men live in the immediate area, within a few minutes of the bakery. As Mr. Liscio noted, “If I have to run over to the bakery on an emergency during one of my sons' ball games, at least I can usually get back to the ball field before the game ends.”

SCHEDULING FOR FRESH. Mr. Liscio and Mr. Vilotti planned the move to minimize business disrup-



tion. Production at the existing site continued during renovation and installation at Glassboro. "As a result, we had almost no downtime during the change," Mr. Liscio said. "A lot of planning went into this, and a lot of people assisted us."

Fresh delivery — which, for this company, means early morning distribution of bread baked during the night — dictated equipment choice and plant layout to meet the exacting schedule. Basically, Liscio's operates four shifts: pastry, cake decorating and two shifts (morning and evening) for bread and rolls. Some customers such as the casinos along the Jersey Shore and the many 24-hour Philly cheese-steak shops — request twice-daily deliveries. The bakery runs seven days a week and shuts down only on Christmas and New Year's Day.

The need to retard all breads and rolls for 10 to 15 hours was another constraint that shaped the new bakery. "Bread makeup, for example, takes place during the morning shift and is then retarded before baking," Mr. Liscio explained. "We freeze nothing, and all products go out fresh in trays, not bags."

"All our customers insist on fresh," Mr. Vilotti added. "That's the most important requirement in our market area. Now the challenge for us is to expand our market reach yet get products to customers fresh and at the time of day they need them."

NEW DYNAMICS. The bakery uses 20,000 sq ft for processing, 10,000 sq ft for packaging, 6,000 sq ft for warehouse and 600 sq ft for offices. It is laid out in zones, with sweet goods production in a separate bay and cake decorating in an enclosed, climate-controlled room.

One interesting aspect of the new bakery is a heavy, ceiling-hung, canvas curtain that separates makeup from baking. Mr. Liscio explained that the compressed air used during cleanup was blowing flour and corn-



▲ "Telescoping" up and down to receive hand-adds, the spiral mixer's bowl also uses a release tool to drop finished dough into a mobile trough positioned below.

meal dust throughout the building. The curtain now impedes that movement, improving sanitation.

Knowing that production would double at the new plant, the Liscio's partners changed to bulk storage and handling for flour. One Pfenning silo now stands outside the plant, connected by a pneumatic conveying system to an in-line sifter inside the bakery and to the use hoppers above the three mixers. A programmable Mettler Toledo scale system controls flour delivery. Like the rest of the new equipment, the flour system was supplied through Gemini. When pouring the pad for the flour silo, Liscio's managers made sure it was big enough to accommodate a second silo.

Liscio's transferred its two existing horizontal mixers to the Glassboro plant, but the company added a new Werner & Pfleiderer/Gemini PowerMixer. The computer-controlled, twin-spiral vertical mixer receives flour automatically. The mixer bowl "telescopes" up and down to allow operators to pour in the "hand add" ingredients. The bowl remains in an elevated position throughout operation, allowing a mobile trough lightly coated with release spray to be positioned under it. When mixing fin-

ishes, the bowl's bottom port opens, and a release tool rotates inside the bowl to extrude and drop the dough into the trough.

"With two spiral arms, this mixer uses half the time of a same-size horizontal mixer," Mr. Liscio observed. "We chose spiral mixing because it gives our doughs more development in less time. I would eventually like to go with all spiral mixers. This method gives us a good consistent mix, which is crucial to our products."

"Extracting the dough is simple," Mr. Vilotti added. "Operators do not need to cut it out in slabs as they do with the horizontal mixers."

THREE LINES, SEVEN OVENS. Bread and roll production requires three different production lines. The newest, a Gemini Craftsman system, is fed by a W&P Tevimat dough divider. This line receives dough balls and runs them through sheeters and pressure boards to form the long rolls of dough that are the basis for Italian bread, torpedo, hoagie, sub and dinner rolls. The system takes advantage of recent advances in sheeting technology to handle dough in gentle fashion.

"The Craftsman sheeting line is more consistent, more productive.



We use it for nearly all of our sub rolls, but it can do anything from small banquet rolls to long Italian breads," Mr. Liscio said.

The second line came over from the previous facility. Headed up by another W&P Tevimat dough divider, it sends dough balls through a Cinnella Esparia overhead intermediate proofer. The third line, primarily for larger loaves, uses a new Adamatic



▲ The bakery's new bread forming line employs the latest advances in sheeting and pressure board technology.

divider. Line operators place the moulded dough pieces from each of these lines on cornmeal-coated peel boards and into rolling racks. Then, it's into the retarder. The next day's production shift transfers the racks to the proofer. Both retarder and proofer are also new, supplied by Reed Oven.

Most of Liscio's bread and rolls bake in the new W&P/Gemini NUN 60-ft tunnel oven. The direct-fired oven produces a light, crispy crust while assuring a tender, moist crumb for these products.

In its wholesale business, Liscio's concentrates on serving the sandwich shop food culture unique to its region. As Mr. Vilotti explained, every sandwich store or chain has its own requirements for the shape, size and texture of the bread and rolls it

uses. Some make their sandwiches with a higher proportion of bread; others want smaller rolls so they can show more meat. For this reason, the company brought along its existing four Reed revolving tray ovens and two Sveba Dahlen rack ovens. "We bake some products in the smaller ovens to give different crust qualities to them," Mr. Liscio explained. The rack ovens handle pastries, cookies and cake products.

Exiting the tunnel oven, the hot breads and buns must cool before they can be put into distribution trays. If loaded right out of the oven, these products would collapse. Instead, they travel along the new G&F conveyor system and spiral cooler. Ambient plant temperatures are sufficient for the spiral cooling conveyor to do its job.

SECURE SHIPPING. Liscio's delivers its bread and roll products loose in sturdy, open-topped, low-walled corrugated trays, roughly the same configuration and size as other wholesale plastic delivery trays. "This type of carton tray is a preference of this region," Mr. Liscio said.

As bread and rolls come off the spiral cooler, they are counted into trays, stacked and moved to the staging area. Here, the trays are grouped by delivery area and moved into 10 separate, locked holding cages, one per dock door. This provides security not only to outgoing goods but also to plant operations.

The open-air shipping dock boasts a roof to protect trucks and loading operations from inclement weather. The bakery operates 10 delivery vans of its own, also supplying product to several independent distributors.

The plan for the renovation was to think ahead, establish essential systems and fill in details later as necessary. For example, Liscio's provided a place and wiring for a back-up electrical generator but did not immediately install the equipment. "Budgets, you know," Mr. Vilotti shrugged. But

such foresight has since paid off. The area experienced a power outage caused by a lightning strike, an outage that cost the bakery five hours of production. The partners promptly went out and got the generator. A couple months later, a similar outage occurred. "The lights in the plant flickered a bit when the automatic changeover occurred, but we lost no production at all," Mr. Vilotti said. "The emergency generator paid for itself at once."

With the larger building, the company now has an area to store raw materials and supplies, set adjacent to a receiving dock, while another area houses utilities such as the recently replaced boiler and alarm systems. It also has a small machine shop for in-house maintenance of machinery.

GROWTH PROSPECTS. Glassboro, Liscio's new "hometown," is going through a renaissance. Much of the activity centers around Rowan University (formerly Glassboro State College). Many redevelopment projects are in evidence, as are improvements in roadways in and out of town. A new stadium is being built to house a Major League Soccer team. The Glassboro Economic Development Commission helped Mr. Liscio and Mr. Vilotti negotiate the acquisition of their new facility. Today, both sit on the commission.

At the bakery, sales growth has reached the point of now working out ways to increase production at the new plant. There is plenty of property on-site for expansion. One idea is to move the retarder room, attaching it to the outside wall.

"As we grow, we want to be flexible to customer needs," Mr. Vilotti said. "And we want to uphold the freshness of our products," Mr. Liscio added. Maintaining the balance between these aspects has guided the partners in their choice of location, technology and business methods. This has always been part of the business at Liscio's and always will be. ■