



Now one of the nation's largest privately held contract manufacturer of snacks and baked foods, Hearthside Food Solutions takes an innovative path to create ...

A Class of its Own

BY DAN MALOVANY

A little more than two years ago almost out of nowhere, Hearthside Food Solutions came to existence. With the backing of Wind Point Partners, a Chicago, IL-based private equity investment firm, the newly created company acquired a substantial portion of the assets from Roskam Baking Co., based in Grand Rapids, MI. Then, in May 2010, in a swift, bold move, Hearthside purchased Consolidated Biscuit Co., based in McComb, OH, as well as the cereal division of Golden Temple, Eugene, OR.

How big is big? Within a blink of the eye — 11 months to be exact — Wind Point and the Hearthside executive team merged these three companies to quietly become the nation's largest pri-

vately held contract manufacturer with annual revenues in excess of \$700 million. More than 5,000 employees currently work at 12 plants in seven states, where the company produces an array of snacks, cereal and baked goods, including cookies,

crackers, croutons, stuffing, pretzels, rye and bagel chips, popcorn, snack mixes, bread sticks, toaster pastries, muffins and more. Its select, small client base consists of a who's who of multinational corporations that hold many of the household brands in the snack, baking, food and retail industries. Odds are, millions of consumers have bought a product made by Hearthside during the past month, but they just didn't know it.



► In just two short years, Hearthside Food Solutions became one of the largest co-manufacturers of snacks, cereal and baked foods under the veteran leadership of (from left) Brian McNamara, vice-president, sales and marketing; Rich Scalise, president and CEO; and Dwayne Hughes, vice-president, supply chain.

“We’re building an organization that has size and scale, but the ability to be fast and more flexible than our customers are with their internal plants,” explained Dwayne Hughes, vice-president, supply chain, for the Downers Grove, IL-based company. “Our vision is to align ourselves with the premier food companies with our fast and flexible operation.”

Hearthside’s facilities range from a 60,000-sq-ft breakfast, granola and snack bar plant in Grand Rapids to the nation’s second-largest bakery in McComb, housing cookie and cracker ovens that are among the largest in the world. In addition to its large scale of production, its operations include flexible downstream packaging lines, ranging from bulk packing and rigid containers to single-serving bags and resealable pouches.

To become increasingly nimble, the company also operates a fabrication plant in Ohio, where it can modify any piece of equipment to add production versatility and create custom-designed products. Addi-



▲ Don Wood (left), MS cutter operator, and Rich Roscoe, site supervisor of the H-4 bakery, review key performance indicators for the cereal bar line.

tionally, much of its production and packaging equipment is modular in design and comes on wheels to allow quick line setup or to reconfigure an operation to produce a new product.

“We have a breadth and scale of businesses — particularly in baking — that you don’t find under one roof, and those capabilities presented to a branded partner are immense,” noted Brian McNamara, vice-president, sales and marketing. “We might not be fast as the one-plant, mom-and-pop operation, but

we are a lot faster than companies approaching \$1 billion in size.”

In many ways, Hearthsides’ business model involves resetting expectations on how the confidential world of contract manufacturing operates, according to John Weller, vice-president, operations, Grand Rapids. “Contract manufacturing was always thought about on a project-by-project basis,” he said. “You get in and get out with low cost. It was temporary. There were no programs and no sustainability of business. What Hearthsides brought to the table was a strategic focus to the co-manufacturing world. The whole idea is to have a plan and strategy behind business growth and leveraging with our partners to continue that growth. It’s not a quick in-and-out, five-and-dime approach to business.”

With a focus on lean management, the company operates like a typical entrepreneurial manufacturer that can make quick decisions despite the operation’s large size, according to Mr. Hughes. “We’re not either one, but a combination of the two,” he said. “We’re entrepreneurial, but we’re large enough with the capabilities to play with the big guys. We’re a hybrid of both.”

Instead of focusing on selling its services, Mr. McNamara noted, Hearthsides emphasizes how it can align its capabilities and manage its production flow to fulfill inven-



Filling up the Pipeline

To better partner with its customers, Hearthsides Food Solutions starts at the beginning of the new product process. In fact, the company operates a test kitchen with laboratory ovens, proofers, fryers and seasoning applicators, as well as a pilot plant that helps product developers take a formula and adapt it from bench to full-scale production.

Hearthsides also has a package development department that works with its customers’ engineers and designers to test various packaging materials and formats so that products can be sold in a wide variety of distribution channels.

At this time, the new product development pipeline remains so strong that the company’s laboratory services are currently booked two months in advance, noted Dwayne Hughes, vice-president, supply chain. Hearthsides provides this service, even if the product ultimately is made at a facility other than its own.

“Although customers will develop products in our facility, it doesn’t mean we’ll be the ones making them for the shelf,” Mr. Hughes explained. “Some of our customers will come in and say they’re trialing this new product for their internal production needs, and we know that upfront, but we’re still willing to provide them with that development service.”



▲ (From left) John Weller, vice-president, operations, reviews production of coated snack bars with Dave Fry, production manager at the H-1 bakery, and Dave Adler, plant manager of the H-1 and H-4 bakeries in Grand Rapids, MI.



Billions of Bars and Still Counting

To further enhance efficiency, Hearthsideside Food Solutions is investing millions of dollars in new equipment and technology. In Grand Rapids, MI, and its suburb of Kentwood, where four of Hearthsideside's 12 plants are located, the company plans to spend \$17.4 million that will create 195 jobs the first year and eventually a total of 302 new positions over the next five years.

Specifically, Hearthsideside is adding a second smaller, more versatile bar line that will increase bar capacity in the H-4 plant by 30% and allow it to produce shorter runs on a more profitable and efficient basis. The company is also adding a mega-bar line in its H-1 facility, said Dave Adler, plant manager of the H-1 and H-4 plants. Overall bar capacity should increase from its current 1.8 billion annually up to 2.5 billion bars a year after the two new lines are installed.

Additionally, the company will invest \$3.8 million to build a 24,000-sq-ft addition to its Michigan City, IN, plant to add new snack cake and cookie baking lines.

Deciding where to invest often depends on customer demand, as well as how the company can better integrate itself to its customers, according to Brian McNamara, vice-president, sales and marketing.

tory and meet the future product development needs of its customers. "Selling is not what it is all about," he said. "It's certainly identifying who you want to partner with and how you can become a value-adding element to their supply chain."

NEXT COMES BEST. After developing its scale by putting three companies together to serve its customers who are among the biggest and the best in the food industry, the company then began rolling out its Hearthsideside Performance System (HPS). That continuous improvement program relies on extensive training and incorporates into its facilities best practices from across the food industry and methods borrowed from other industries. For example, those best practices might come from Toyota's 5-S program (sort, set, shine, standardize and systemize), which establishes how everything must be in the right place for a lean operation to function properly, Mr. Hughes observed.

"What we're doing is taking the best techniques of lean manufacturing, the best successes from Six Sigma and the best practices from Total Process Management, and we're melding them into our plants as a co-manufacturer for the nation's premier food companies," he explained.

Any world-class manufacturing company, he noted, must have four principles: a vision and mission, self-improvement systems, a continuing education program for its workforce and a focus on providing value for its customers. Specifically, Mr. Hughes explained, Hearthsideside's mission and vision requires the company to be a lower-cost producer than the premier food companies it serves. HPS established key performance indicators (KPIs) based on the foundation of safety, quality, service, cost and culture, and it began measuring each production line's performance with the ultimate goal of each plant being a zero-loss operation.

To roll out its HPS program, Hearthsideside brought in every plant manager and supervisor for a couple weeks of boot camp, where they learned HPS terminology from industrial consultants and the metrics for measuring a production line's performance on an ongoing basis. Additionally, the company has a toolbox of about 50 operational techniques and programs for improving a plant's performance. Plant managers then can select anywhere from 10 or 12 tools and tailor them to their operation. Additionally, the program allows line operators to develop their own



▲ In its Ohio bakeries, Hearthsideside co-manufacturers a wide variety of baked foods and snacks, including sandwich cookies, on some of the nation's largest production lines.

HEARTHESIDE FOOD SOLUTIONS

techniques and add them to the toolbox to enhance production.

“We told everyone, ‘If you have ideas or see how to do something better from your previous company, bring it in, and we’ll take a look at it,’” Mr. Hughes said. “If consensus agrees it’s a better idea, we may replace something else in our toolbox. We’re not forcing a prescribed process from a consultant who said, ‘Here’s how I do it. Here’s my way.’ We’re fluid with our program, and that’s the strength of the Hearthside Performance System.”

LEARN, DO, TEACH. After boot camp, the managers returned to their facilities to implement these metrics to standardize operations across the company. They were expected to provide the leadership for starting up HPS and the training on down through the organization as a part of the company’s broader continuous education program based on a sustainable improvement process. “The program all starts with our plant managers. They own it. They lead it,” Mr. Hughes said. “It’s all about learn, do, teach. The philosophy is that everyone learns something or improves something every day.”

Each facility now has leadership and performance boards that track everything from waste to downtime to loss-incident rates. Located on the walls leading to the entrances of plant floors, the leadership boards list those people who are responsible for each line and for ongoing training to improve that line’s efficiency.

The performance boards monitor the operation’s KPIs on a 24/7 basis along with a green or red placard for each KPI on each production line during each shift. With downtime, for example, a green sign indicates the line operated at 85% or greater efficiency. A red placard indicates that the bakery needs to file an incidence report that identifies the root cause of a problem. The performance boards allow everyone in

the operation to visually monitor how the facility ranks according to HPS expectations, and they help each shift know how the previous shift performed.

“You don’t need to understand our metrics as far as what determines

green or red, but you do see how well or badly the bakery is performing,” Mr. Hughes said. “It’s a form of education that everyone can see from our employees to our CEO when he walks through a plant. You don’t have to ask a plant manager how every-

thing is performing. It's right there in front of you."

By looking at the boards, even Hearthsides's customers can get a snapshot of how a facility is performing against the company's expectations. "We were a little appre-

hensive at first, but the reaction has been very positive because [the customers] see we are being very transparent with all of our metrics and how we perform," Mr. Hughes said.

The foundation for Hearthsides's continuous improvement program



▲ Cheddar popcorn is scaled and weighed before bagging at Hearthsides's plant in Michigan.

rests on the premise that the pace of an organization's growth is set by the speed of its leaders. As a result, not every plant will be best-in-class at the same time, according to Mr. Hughes. Rather, each facility has a baseline and a strategy for enhancing its current performance level.

As a result, each plant is ranked as a lead, a mirror or a shadow site. Lead sites, or those bakeries that are furthest along toward performing on a best-in-class level, receive the most resources because they have the potential for the greatest return on investment. After developing new tools for best practices, the lead sites then transfer these tools to teach those bakeries that are mirror sites. Shadow sites, often the smallest bakeries, focus on benchmarking their operations against how the leader plants are performing.

RAPIDLY RAMPING UP. In metropolitan Grand Rapids, Hearthsides operates four facilities. Its lead site, H-1, houses 12 production lines that produce everything from croutons to cold-form bars in a 260,000-sq-ft plant resting on 15 acres of land. Its H-2 plant is a mirror site in a 152,000-sq-ft facility that houses six lines, producing popcorn, caramel corn, pretzels, bagel chips, rye chips, bread sticks and other components for snack mixes. Additionally, the

For more information, see Page 137



▲ Steve Slater (left), plant manager at the H-2 bakery in Grand Rapids, MI, along with Jeff Foss, business unit manager, monitor production of dough from the continuous mixer on the high-speed pretzel line.

H-2 plant's two snack blending lines feed two vertical form/fill/seal baggers that mix, make and package a variety of Cheddar and other flavored snack mixes. The H-3 facility is a 40,000-sq-ft warehouse and packaging plant, and the H-4 operation is a 60,000-sq-ft shadow site that houses a cold-formed bar line.

Cold-formed bars, which are not baked like some snack bars, follow a similar process on several lines the various facilities. In the H-4 plant, which is one of the company's most modern facilities, liquid bulk ingredients including corn syrup and yogurt coatings are stored in 48,000-lb tanks in a "hot room" that's kept at 120°F. Instead of jacketing the two tanks with insulation, the company decided storage in an enclosed, heated room would be a more affordable option, noted Rich Roscoe, site supervisor of the H-4 facility.

Production begins when 2,000- to 3,000-lb totes of dry cereal and other ingredients are dumped into one of a battery of K-Tron material transfer bins, which each can hold one ingredient and allow Hearthsides to produce a wide variety of bars with multiple components in them. Upfront, the process resembles that of a line making boxed dry cereal, Mr. Adler noted.

From the K-Trons, cereal and other dry materials travel up a bucket elevator to an A&B processing system with a 2,000-lb mixer where the dry ingredients combine with soybean oil and a slurry of liquid ingredients for flavor. The versatile system has a Grote kettle for heating oil and other minor liquid ingredients as well as an ancillary kettle for heating or cooking other liquid ingredients. Although the line has an Allen-Bradley PLC recipe system, mixer operators also have paper backups for formulas as the company continues to adapt more automated controls, according to Mr. Roscoe.

The batch then transfers to the hopper of a Hosokawa Bepex slab former with three adjustable rollers to create the proper height, width and speed of the slab. After traveling through compression rollers to ensure the correct size and weight of the bars, the slab moves under a Woody Stringer to receive drizzle or zigzag decorative icings or coatings. Here, an optional Sollich Enromat can be rolled over and added to the line to coat the bars in chocolate or vanilla, if the formula calls for it. After traveling through a 100-ft, glycol-chilled cooling tunnel set at 40°F, the slab travels through a rotary cutter that slices the slab into 28 rows and then to a guillotine to create the bars before they enter a cooling conveyor.

Next, the bars pass through a Safeline metal detector and are directed, aligned, indexed and travel in single file through one of four Campbell horizontal flow wrappers. The packaging area also has a

Putting the Pieces Together

In the contract manufacturing sector, now growing at an estimated 10% annually, Hearthsides Food Solutions may be a new name to the baking, cereal and snack industries, but the three businesses it acquired during the past two years have been serving the major players in the food industry for 80 years.

Additionally, Hearthsides's executives have extensive experience working for food and contract manufacturing businesses. Rich Scalise, CEO of the Downers Grove, IL-based company, has more than 33 years in the food industry and previously served as president of Ralcorp's Frozen Bakery Products and president and COO of ConAgra's \$3 billion refrigerated foods division.

Hearthsides's CFO James Wojciechowski also has three decades of experience, having been the top financial officer at Ralcorp's Frozen Bakery Products and other companies. Brian McNamara, vice-president, sales and marketing, is a 30-year food industry veteran who worked at ConAgra, Quaker Oats and Heinz. Dwayne Hughes, vice-president, supply chain, has more than 20 years of experience working for companies such as Quaker, Nabisco, ConAgra and Ralcorp.

Other senior managers include Steve England, vice-president, human resources, with more than 30 years in the packaging and food industry, and Bob Burchfield, chief information officer, with two decades of experience at food and information technology companies.

Wind Point Partners, based in Chicago, IL, is a private equity firm, founded in 1983. It has more than \$2 billion in capital under management. Its diverse portfolio has included such companies as Nonni's and Bakery Chef, both of which it has sold to other businesses during the past few years.

fifth wrapper that serves as a back-up system or can be used for bulk products. The bars then feed into a Bradman Lake cartoner before the boxes are sealed and code dated. To ensure accuracy, the cartons travel over a Toledo checkweigher prior to manual case packing and into an automatic ABC case sealer. Case packing isn't automated because the lines regularly produce numerous bar and packaging sizes, Mr. Roscoe said.

SNACKS TO THE MAX. In the versatile H-2 snack facility, the bakery has four 100-ft ovens, three of which are 48 in. wide and another that's 80 in. wide. Flour from three 210,000-lb MAC Equipment silo systems feed the lines, each of which is staffed with only eight to 10 operators because the systems are so efficient, according to Steve Slater, plant manager. After traveling through a Great Western sifter, flour enters one of three continuous mixing systems. One mixer feeds the first two lines that make breadsticks, swizzles and other components, while the second mixer feeds the pretzel line, and a third supplies the bagel and rye chip operation.

Pretzel production demonstrates how versatile and efficient Hearthsideside has become. Here, an Exact continuous mixer from Reading Baking Systems cranks out 4,000 lb of dough an hour. Flour is first combined with oil and water plus a salt slurry and yeast to create a premix that moves into the unit's development barrel, which cycles out a 4-lb piece of dough about every 20 seconds.

According to Mr. Slater, the continuous mixing process reduces labor, eliminates formulation errors and quickly adjusts flour and yeast to provide greater dough consistency essential to making delicate, crisp products. "You can increase or decrease the dough flour on the fly, and you don't have to wait until the next batch to do it," he said. "With continuous mix, you get the operation run-



▲ On the pretzel line, a unique double-row die cutter running 265 cuts per minute produces two differently shaped dough pieces simultaneously.

ning smooth, and you just have to make little adjustments downstream to fine-tune any production."

The dough chunks then travel to an extruder feeding a unique double-row die cutter running 265 cuts per minute and capable of producing two differently shaped dough pieces simultaneously. "We're just laying and running the line on maximum speed," Mr. Slater said.

Traveling along a 100-ft proofer conveyor naturally ferments the yeast prior to the pieces entering a sodium hydroxide caustic bath that will eventually give the pretzels their brown shell after baking. The pliable pieces are hit

with a dash of salt before baking in the 2-stage oven for about 12 minutes. First, the pretzels are baked on the 100-ft tunnel oven band to attain their color, and then they loop back underneath the band into a dryer section to eliminate excess moisture and attain their crispy texture. After a brief cooling period and metal detection, the pretzels travel down a tube conveyor, which gently drops them to a plastic-lined bulk container.

CONTINUALLY INVEST. On the bagel and rye crisp line, which produces a multitude of components



Victim of its Success

To be a low-cost producer, Hearthsideside Food Solutions needs long production runs, which often translate into a more efficient operation, according to Brian McNamara, vice-president, sales and marketing. Although Hearthsideside strives to be flexible, any run that's less than a full shift of production is difficult to justify for a company its size.

While long runs of five, six or seven days may be good for the bottom line, the ultimate irony in the world of co-manufacturing is that Hearthsideside may lose that business if a product becomes too successful and the customer decides it's time to produce it in-house.

"Sometimes, a product will reach a scale where it makes sense for one of our customers to repatriate that product," Mr. McNamara said. "But when that happens, we'll give them one SKU, but they'll often give us two back. We may get a little less efficient, but we don't lose the scale of our business. Those things happen in terms of business, but they don't destroy partnerships if your business with them is strategic instead of transactional."

As a result, he added, Hearthsideside needs to be aggressive in building its business to achieve steady growth in the long run. "We often find that you have to grow 30% a year in order to grow 10% in the long run because you can lose some of that business, if it becomes too successful," Mr. McNamara said.



▲ Hearthsideside produces a wide variety of pretzels and components for snack mixes at its facilities in Michigan.
HEARTHESIDE FOOD SOLUTIONS

for snack mixes, 18-in. loaves bake on Reading's signature 80-in.-wide oven line. To streamline operations, Hearthsideside invested in a Stewart Systems spiral cooler to eliminate labor- and space-intensive rack cooling of the loaves. The line now operates with cooler feeding an Urschel slicer ahead of a National dryer to produce the components. "We used to have a crew of 15 assigned to this line, and now, we run it with just two people," Mr. Slater said. "We not only took the rack out of the process, we took out the labor. The old way was expensive for us, and moving all of those racks just elevated the risk for injuries and product breakage, so we made it a clean operation to make it more efficient."

To improve its cost structure, Hearthsideside needed to understand its capacity needs and how to adjust production lines to establish their maximum throughput. The company relied on theoretical max studies, which start with the OEMs' benchmarks on capacity and throughput. The studies then identified the choke points on the line to determine where to fix or invest in the operation to increase capacity. For example, a pretzel line that had been running at 4,500 lb an hour, based on an equipment manufacturer's recommendations, actually might have a theoretical max of 5,200 lb an hour when all of the choke points are removed, according to Mr. Hughes.

Food safety also is a prominent component of its continuous improvement process. By the end of the year, Mr. Hughes said, all 12 of Hearthsideside's production facilities will be rated SQF Level 3, the highest level available from the Safe Quality Food Institute as a part of the Global Food Safety Initiative.

Additionally, the company is rolling out SAP, an enterprise resource planning system, across all of its plants to better integrate scheduling and operations, to further lower its costs and to improve the customer service it provides its big-time customers. "SAP is an enabler tool, providing real-time data that will allow us to be more flexible on our feet," Mr. Hughes said. "HPS is all about managing around data and relying on data to tell you where to focus your efforts and resources."

For the 2-year-old company, he added, that focus remains on improving its quality and service in the way that puts the business into a class of its own.

"It's a journey to be a world-class operation," Mr. Hughes said. "It's not a destination. That's where our beliefs are, and we're building our system around the ability to demonstrate continuous improvement year over year." ■



Food Safety First

To succeed as one of the nation's largest co-manufacturers, Hearthsideside Food Solutions needed to secure the trust of its customers. In many ways, earning trust involves focusing on the fundamentals, according to Rich Scalise, Hearthsideside's president and CEO.

"Where are you going to win? You are going to win with food safety," he noted. "You are going to win by having access to capital to invest quickly in a way that helps your customers take costs out. Our goal is on continuous improvement and finding better ways to take costs out of the structure on our customers' products."

Hearthsideside provides capital investment in four ways, according to Mr. Scalise. First, it supports food safety for the megabrands it produces. This year, the company is requiring all of its 12 facilities to attain SQF-3 (Safe Quality Food) certification via the Global Food Safety Initiative.

Second, the company is investing in infrastructure. That not only involves improving its facilities and production lines, but it also requires starting up SAP and other enterprise resource planning efforts to better link and synchronize its operations with its customers.

Third, Hearthsideside is expanding capacity with multi-million-dollar investments in new bar lines in its Grand Rapids, MI, operations and building onto its snack facility in Michigan City, IN. Last, Hearthsideside may even invest along with its customers to add new capacity to produce custom-made products.

Hearthsideside's name, in fact, is based on the company's strategic mission. The "hearth," Mr. Scalise said, came from the bakery's projected roots. He added that the "side" in Hearthsideside reinforces its ability to partner alongside the leading food manufacturers of the world.