MCN CASE STUDY: DENNEN STEEL CORP.

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METAL CENTER NEWS CASE STUDY

INSIDE: DENNEN STEEL CORP.

THEIR INNOVATIVE EXPANSION INTO STAMPING & MANUFACTURING

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CASE STUDY

Dennen Steel's corporate headquarters is located on Interstate 96, just west of Grand Rapids, MI.

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Manufacturing *a New Identity*

To thrive in a changing steel industry, Dennen Steel has modified its position as a traditional service center with a bold foray into contract manufacturing.

In 1995, 30,000 companies supplied parts to the automotive industry. Ten years later, the number was down to 10,000. By 2010, experts say, there will only be 4,000. "That's indicative of what's going on in our world," says Andrew Dennen, president and CEO of Grand Rapids, Mich.-based Dennen Steel Corp.

Fortunately for this family-owned West Michigan service center, the company has taken steps to ensure its future in the rapidly changing steel supply chain. While continuing to distribute steel, Dennen is betting its future not just on value-added processing, but on contract manufacturing.

Specifically, Dennen Steel is specializing in metal stamping.

"We are constantly looking into the future and saying, what do we want to be when we grow up?" Andrew Dennen says.

Andrew Dennen (right) and Peter Dennen (left) are the second generation to operate Grand Rapids, MI - based Dennen Steel Corp. Unlike the past generation, the brothers see their future in contract manufacturing, as well as steel distribution.

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Dennen Steel will stamp 20 million parts this year largely because their unique "value proposition" (consolidation of steel procurement, blanking, stamping, storing and JIT delivery) offers customers rare, cost-cutting alternatives.

"That's a question that's been in our minds as we've seen our business change."

Their response to the market's shifting conditions came out of extensive discussions with the company's advisory board.

"We talked about how the environment around us was changing, and we came up with a future-state business that we feel can allow us to grow — not just in terms of revenue but in importance to key customers and outside the marketplace in Western Michigan," Dennen says.

Traditionally, Dennen has served primarily as a supplier of slit coil to various types of manufacturers. But throwing themselves into contract manufacturing was a logical step, in part because the company already had four large stamping presses in place.

The company actually has more presses than slitters, running four press lines in its Grand Rapids facility and a fifth at its operation in Burns Harbor, Ind. At Grand Rapids, Dennen operates a 600-ton PTC press line, a 500-ton Bliss line, a 400-ton Verson line and a 400-ton Warco line. A 600-ton Blow line is employed at the Indiana facility, which opened in 2004.

Dennen also operates two slitting lines in Grand Rapids—a 72-inch Octagon line and a 60-inch Pro-Eco line.

Having the proper equipment was just half the puzzle. To fully develop its manufacturing capabilities, Dennen needed to find the right people. And that started with Lawrence Murray.

"The question we had was, do we hire someone with a service center background who has used presses before, or do we hire somebody with a manufacturing background," says Peter Dennen, Andrew's brother and the company's senior vice president. "Ultimately, we decided we'd been doing slitting for 60 years, and we couldn't get much better at that. But there was a lot we could learn from the manufacturing world."

Murray was hired as vice president of operations in 2004 following stops at Gill Industries Inc. and Lear Donnelly. In 2006, he was named president of Dennen Steel's press division, overseeing manufacturing operations at Grand Rapids and Burns Harbor.

"It's come together in the last 3½ years, and a lot of that coincides with Lawrence coming on board," Peter Dennen says. "Lawrence brought that manufacturing perspective to us."

To Murray, the possibilities at Dennen Steel were equally exciting. "I've never had this much at my fingertips," he says, noting the company's stamping area with high-tonnage presses combined with its traditional service center equipment. "We can provide coil to the application and run the dies. It gives the customer a great option."

Director of Operations, Rafael Ocampo (above), explains their visual KANBAN system.

Lawrence Murray, President Press Division, holds a stamping ready for just-in-time delivery.

The company complemented Murray's expertise with other hires from manufacturing industries, while retraining existing personnel to adapt to the new Dennen Steel.

But even with the right personnel and equipment, the company wasn't ready to jump headfirst into contract manufacturing without a plan that addresses all possible contingencies.

"We front-loaded the program," says Murray. "We asked the proper questions up front: Do we understand the customers' needs? Do we understand all the critical characteristics of each part? Do we have all the material lined up? Do we have all the packaging lined up?"

It wasn't until the entire program was in place and Dennen was confident in its ability to execute that it began soliciting business as a stamper. "It went off pretty well," says Murray. Since then, mirroring the lean mindset of its new customers, Dennen has been working on continuous improvement—much as it has since its founding in 1947.

Cyron Dennen, Andrew and Peter's father, launched the company as a steel brokerage specializing in buying and selling railcar loads of government war surplus steel and aluminum. Dennen Steel Supply Co. operated out of a Quonset hut on Third Street in Grand Rapids before moving to a 25,000-square-foot facility on Grand Rapids' Turner Avenue.

The business, which then included Cyron's brother Philmore, relocated again in 1968 to a 57,000-square-foot building at is current site on Fruit Ridge Avenue. The new building offered additional space for slitting equipment, making Dennen the first in the area to employ slitters.

The brothers grew the business

Dennen utilizes quality control processes to ensure parts are produced to customer's specifications.

until the partners sold it to Azcon Corp. in 1976. Cyron Dennen retired, while Philmore Dennen eventually left Azcon to form Philmore Steel Ltd., where he was joined by Andrew Dennen. Azcon ultimately liquidated its West Michigan operation, and the men reclaimed the Dennen Steel name and facility in 1984.

With nothing but a name and an empty building, Dennen went about re-equipping its operation with two slitters and—sensing changes in the manufacturing economy—its first press line.

Today, besides their lineup of slitters and five presses, Dennen has tool, die and maintenance capabilities, and an on-site metallurgical lab.

But to Peter Dennen, who joined the company in 1997, and brother Andrew, it's not the equipment or services that are driving the company's changes, it's the "value proposition" that stands to benefit the entire supply chain.

"We look at our role in the supply chain more as a partner with our customers, where there are rewards and incentives for each of us to run our businesses leaner," says Andrew. "We want to make sure the business makes sense for all the players in the supply chain on a longer-term basis."

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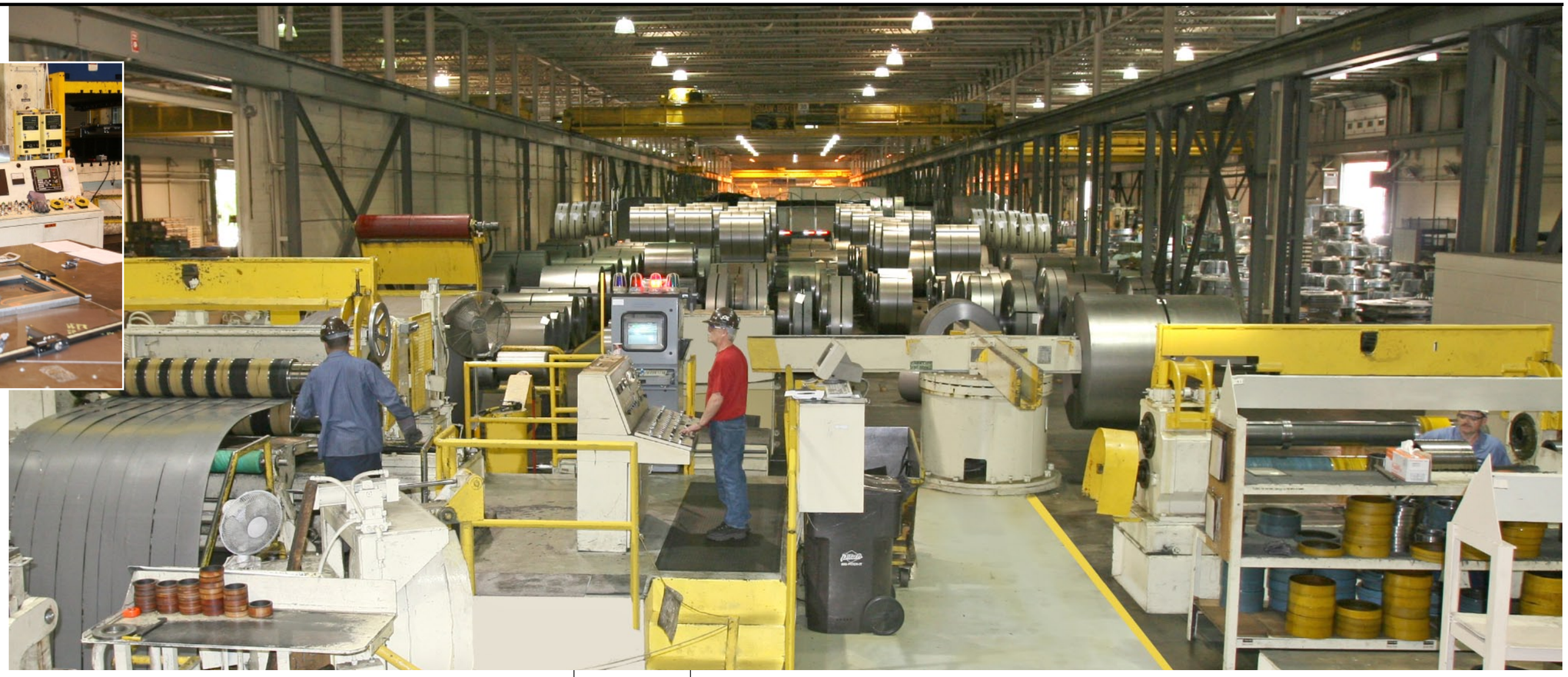

The Dennen Steel Service Center can slit up to 72" master coils. Slit coils are banded then staged for stamping at the rear of the facility, or moved to bays for JIT delivery or storage.

term basis."

Dennen Steel hopes to serve as a more instrumental bridge that connects the steel producer (mills) to the end-user (manufacturers). With its long term mill relationships and its knowledge of customers' needs, the company sees itself as the appropriate party to bring the supply chain members together.

"We have much greater control of the quality of the product because we're telling the mill how to make it," Andrew says. "We're starting to get customers to understand the advantages of integrating the various resources we have."

It's largely a matter of changing their mind set from a price-based decision on sourcing to a cost-based decision. In a price-based model, customers will go for the lowest bid. But such an approach has hidden costs, including quality, service and yield. With a cost-based approach, however, the supply chain partners are all equally vested in working together to improve business, the Dennens explain.

Some of that cost saving is obvious. With more of the manufacturing operations taking place at Dennen, transportation costs are removed from the equation.

"When you're striving for "lean", you don't want excess waiting time or unnecessary movement of parts," Murray notes.

"We're trying to offer services that will carry working knowledge of the steel business from the mill to our end-use customer. The [raw] steel never has to leave here."

Moreover, once the steel is under the control of Dennen, the company can employ it in the optimal way. "Since our guys ordered it and our guys slit it, our yield expectations at the press should be very, very high, because we've controlled the process all the way through."

And customers are appreciative. "In general, customers want fewer suppliers, not more," says Andrew Dennen. "The more products and services you can offer, the better."

The Dennens admit that some of their fabricator customers now consider them rivals, though there hasn't been as much fallout as originally feared. "We're not trying to be their competitor. We want to be a hybrid, where we bring the value of a service center with some manufacturing capabilities," says Peter Dennen. Indeed, the company has no intention of abandoning its service center functions, and sometimes outsources work to the very fabricators that consider them competitors.

"Some secondary operations are performed on the outside. If we don't have the resource to do it inside, or maybe the volume isn't large enough, we work closely with partners who add the missing pieces of the processing puzzle," Murray says.

It's that attitude—that companies should not view themselves as individual links but rather as part of the larger chain—that Dennen strives to instill.

"Just because our name is on the door doesn't mean our presses and our slitters aren't part of their manufacturing footprint," says Murray. "We encourage all of our customers to consider our equipment as part of theirs. It really makes a big difference." ■

Dennen's West Michigan 175,000 square foot facility offers ample space for their expanding stamping and light assembly business.

QUICK FACTS

DENNEN STEEL CORP.
3033 Fruitridge, NW Grand Rapids, MI 49501
T 616 784-2000 F 616 784-0070

www.dennensteel.com

KEY PERSONNEL
Andrew Dennen, Chief Executive Officer; Peter Dennen, Senior Vice President; Lawrence Murray, President, Press Division; Trent Bremer, VP Finance; Michel Fortin, General Manager, Coil Division; Rafael Ocampo, Director of Operations; Chris Molnar, Plant Manager, Burns Harbor.

FACILITIES
Grand Rapids, MI 175,000 sq ft manufacturing space ~ Burns Harbor, IN 35,000 sq ft manufacturing space. 30 ton crane capacities.

QUALITY SYSTEM
TS 16949 registered since 1999.
On-site CMM capabilities, chemical analysis spectrometer, YTE testing, x-ray gauging.

PRESS LINES
Blow 600 ton, 120 x 84, 72" wide feeder ~ PTC 600 ton, 144 x 108, 60" wide feeder;
Bliss 500 ton, 108 x 96, 72" wide feeder ~ Verson 400 ton, 96 x 72, 72" wide feeder;
Warco 400 ton, 84 x 60, 72" wide feeder.
Herr Voss leveling. Up to 30 ton feed line coil handling capacities.

SLITTING LINES
Octagon 72" wide, .010 - 0.149 gauge ~ Pro-Eco 60" wide, .019 -.160 gauge. Up to 30 ton coil handling capacities.

SECONDARY PROCESSES
Wysong CNC hydraulic press brake, 175 ton, 144" bed
6 Axis GMF robotic mig welding, 58" reach ~ Resistance welding machines (2).

DIE MAINTENANCE TOOL ROOM

MATERIAL TYPES
Carbon steel in hot-rolled, hot-rolled pickled and oiled, cold-rolled, cold rolled enameled, galvanized, galvannealed, prepainted, stainless steel. CQ, DS, HSLA and Ultra HS.

PRODUCTS
Deep drawn progressive complete metal stampings, 1st operation configured blanks, secondary forming and welding. Flatness critical, surface critical and large parts.

SALES CONTACT
Debra Smale
dsmale@dennensteel.com