

SPRING 2012 **Daman** 41 **ISSUE**

CELEBRATING 36 YEARS OF CONTINUOUS IMPROVEMENT



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DAMAN FEATURE

Cultures come together

Expressions of gratitude can vary from the simply stated “thank you” to the more extraordinary. One of Daman’s suppliers demonstrated its appreciation of its long-term partnership with Daman by hosting two employees for a weeklong, all-expense paid trip to Japan last fall.

DAMAN FEATURE

When Mazak Corporation invited Daman representatives to travel to the company's headquarters in Minokamo, Japan, the choice of travelers was simple. Neil Henderson, continuous improvement manager, and Steve Ward, equipment performance leader, had worked the most closely with the machine tool builder's North American division. They deserved the opportunity to see how the supplier operates on the other side of the world.

"We were with 20 other Mazak customers from the U.S. and Canada," Henderson said. "Everyone else was an owner, president, manager or other type of executive."

Henderson and Ward understood Mazak's machines and technologies better than most of the group. They work with

the machines every day and continually look for ways to optimize machine performance and efficiencies. That's one of several reasons why Henderson and Ward represented Daman on the trip. Indicative of Daman's culture, company leadership knew the trip would afford Henderson and Ward significant opportunities to learn, grow and develop in ways that would benefit Daman for years to come.

Cultural influences

Daman's team philosophy illustrates a key principle of its culture of continuous improvement. And it's a philosophy well recognized by Mazak – another follower of lean manufacturing practices.

The culture of Mazak's Florence, Ky., operation closely mirrors its parent company in Japan, explained Henderson.

Both facilities demonstrate a commitment to "serve, solve, support" their customers. In other words, the traditional Japanese culture emphasizes taking care of customers and providing excellent service – something Daman also strives to do every day.

During daylong tours of Mazak's facilities in Minokamo, Seiko and Oguchi, Henderson and Ward saw firsthand some of the new technologies that Mazak is developing for better high-speed production. They also participated in plenty of sightseeing and cultural activities. The president of Mazak, Tomohisa Yamazaki, joined the customers for almost every activity, Henderson said.

Familiar culture

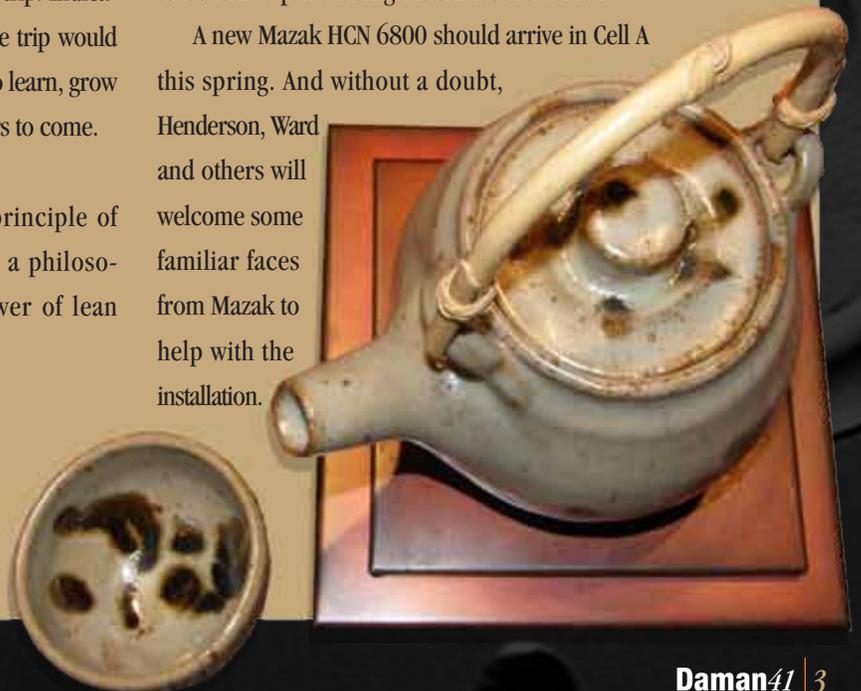
Even though Mazak is a huge corporation, it still feels like it runs in a family-oriented way. And that familiar sense of culture has strengthened Henderson's reasons to continue purchasing machines from Mazak.

A new Mazak HCN 6800 should arrive in Cell A this spring. And without a doubt, Henderson, Ward and others will welcome some familiar faces from Mazak to help with the installation.



Mazak's president, Tomohisa Yamazaki, and Daman's Steve Ward

Daman's Neal Henderson reviews some of Mazak's new technologies



Building for the future



All the numbers add up. Double-digit growth since 2010. Lengthening production lead times. Additional machines using more square footage. Technology ready for upgrades. Time to expand.

Building plans are ready. Contracts are signed. Equipment is ordered. Daman is poised to expand its manufacturing facility again.

“We’re ready to build a 24,000 square foot addition this spring,” Dave Mischler, vice president, explained. The addition will connect with Daman’s 32,000-square-foot manufacturing facility, located in northern Indiana. More than 80 percent of the new space will accommodate

expansion of the production floor.

The decision to expand evolved naturally. Increased sales demands, particularly in custom orders, and consistent extensions in lead times led everyone to the same conclusion: it’s time.

Planning ahead

Planning for the expansion began in earnest in 2011. Using a local architect and builder, Daman leaders from every aspect of the company participated in rethinking space needs and how current space is used.

“We didn’t want the facility to restrict our growth and machining capabilities,” explained Mischler. With a new Mazak machine arriving in early spring, everyone knew the production floor had reached its maximum capacity. They concluded it would be impossible to add any more equipment in the current space.

That restriction caused concerns as Mischler and others looked at the company’s production trends. In 2010 and 2011, Daman recorded 30 percent increases over prior years. And projections estimate double-digit growth in 2012. But existing equipment and production capacity limited growth to no more than 10 percent.

Upward trends

Industry-wide, hydraulic and pneumatic shipments and orders have increased significantly since 2008, according to the National Fluid Power Association. By year-end 2011, fluid power shipments were up over 22 percent, compared to 2010. And the encouraging trends point to continued improvement in 2012.

“With this new space, we’ll be able to expand our custom capabilities, as well as increase our capacity for standard production,” Mischler said.

Construction plans call for breaking ground on the company’s current industrial site in April. The six-month project not only will add square footage to the production floor, it will allow some remodeling and remapping of several front office areas.



ENGINEERING SOLUTIONS

Fixing others' failures

Sometimes a fresh set of eyes can see different solutions. That's what happened when a failed laminated, steel manifold from another manufacturer captured attention in Daman's Distributor Services group.

A separation on a laminated seam caused the manifold to fail. The end user shipped the part to Daman with an urgent request: reverse engineer the manifold into ductile iron without altering the block size. And quickly.

When the manifold failed, critical field work stretching bridge cables had stopped. The end user needed a replacement part to continue testing specimens for ultimate tensile strength. Typically, specimens are subjected to 2 million cycles of fatigue loading to provide critical stress ranges.

Straightening out the connections

Given the field demands, concern seemed warranted that another laminated manifold may also fail.

"Manifolds typically are subjected to a lot of repetitive cycles," Trevor Henkler in Distributor Services, explained. A solid, ductile iron block would eliminate possible points of separation that could cause another failure.

Daman's engineers seized the opportunity to re-engineer the manifold out of a solid block of ductile iron. They knew the drilled manifold would result

in better durability and flow characteristics and a cleaner part with no hidden connections. And it would never delaminate.

A sizeable challenge

Reverse engineering began with a close examination of the failed manifold. An entire laminated seam had separated, causing catastrophic failure.

And it was a large block – nearly 1,000 pounds. "Often times a sample can fit on your desk while you determine the internal connections. Not this time," Henkler said.

Instead, Henkler and his team relied on decades of collective knowledge and sophisticated technology to convert existing specifications into a new configuration. The shipped part met the customer's size constraints for a "drop in" replacement, and the end user was back in business.

Original or improved

An end user doesn't always have to go back to the original specifications or supplier for a replacement, Henkler explained.

"We expect this part to provide a more durable solution for this project," he said.

Sometimes it just takes a little out-of-the-block thinking.

Daman re-engineered a competitor's delamination manifold failure, and maintained original block size, valve and port locations.



Investing in improvements

Most businesses have a laundry list of improvements that they'd like to accomplish in short- and long-term horizons. Daman is no different. A running inventory of important improvements touches virtually every aspect of production, service and delivery.

In 2012, Daman plans to reinvest over \$1 million in quality control, technology, process efficiencies and marketing. Equipment and building expansion capture additional reinvestment dollars in this year's budget.

The company is in a growing mode, according to Dave Mischler, vice president. Sales growth in 2010 exceeded the previous year by 30 percent. The same growth figures held in 2011. This year, all indications point to another double-digit increase similar to last year.

The planned improvements fall in line

with overall business strategy.

"We're always on the lookout for ways to improve our technologies and systems," explained Mischler.

Improving all facets

Over the past several months, company leaders have looked at processes companywide and asked, "are we ready to grow more? Can we accommodate

a healthy increase in activity?" The probing shed light on some specific areas to improve.

On the shop floor, production teams have already made room for a new washing and drying system. The improved process will ensure that hydraulic components meet Daman's advanced cleanliness standards.

"Quality issues always present opportunities to improve," Mischler said. "We've always had high standards for cleanliness – we're just raising our own bar."

A new coolant filtration system will add longevity to equipment and reduce production costs.

Ongoing investments in hardware and software will allow for server upgrades and greater integration of business, production and management systems.

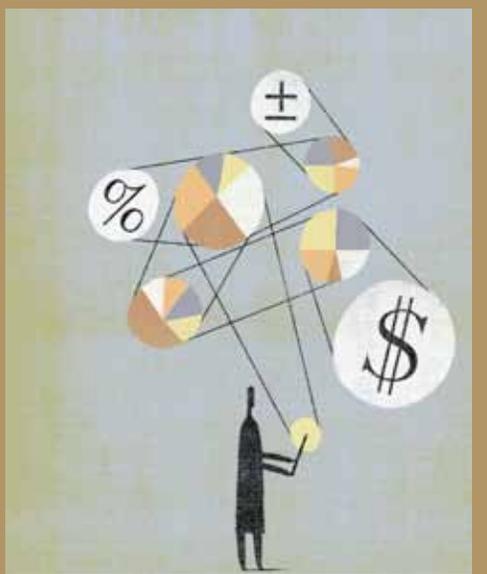
As the industry relies more and more on electronic communications, company leaders recognized a strong need to give the Daman website a facelift. Anticipated updates also will improve the functionality of the site and allow greater interaction between Daman and its customers.

Workplace organization remains a critical element in Daman's commitment to continuous improvement. A portion of the reinvestment cache will fund final steps in completing 5S storage and organization in certain shop areas.

A work in progress

Beyond the continuous improvement plans, Daman has slated 2012 as the year to expand its physical operations by 75 percent. Plus, the company expects to take delivery on new machining equipment this spring.

As with any continuously improving company, the active, rolling list of reinvestment projects only continues to grow. New opportunities to improve are already moving up in priority – perhaps for next year's consideration.



OUTLOOK

Show me the money

By Larry M. Davis

By the numbers, our lean/continuous improvement culture is setting all kinds of records. We recently reviewed our current and long-term performance numbers for a perspective on how fluctuations in the economy have affected us.

Our analysis showed that we struggled with a 40 percent decline in top-line revenue during the recent recession. Unlike the 2001 recession, however, we emerged in the black.

In 2010 and 2011, sales increased 30 percent year over year,



out-pacing our industry. Such top-line growth could have left us wondering at year-end why there was less profit on more sales.

Instead, our profit percentage of sales was outstanding in 2010 and even better in 2011. We're looking forward to accelerated growth again this

year and for our financial story to be similar at year-end.

Growth of this magnitude would have overwhelmed our previous traditional, forecasting business model.

One of our key effectiveness indicators is sales dollars/machine hours. Since our abandonment of the traditional business forecasting model (and its related system waste in 1997), this key measure has improved 140% and continues to trend up.

This is a great story in and of itself. But consider that in 2010 and 2011, we reinvested over 5 percent of sales each year in continuous improvement projects. Projects this year include major investments in brick-and-mortar expansion, additional manufacturing equipment, an interactive website, new wash equipment capable of meeting cleanliness standards, and over 70 other initiatives.

As always, there is more to do,

DID YOU KNOW

Machine power

We've increased our product offering, thanks to a new horizontal machining center, installed in March. The high-speed technologies and pallet size of the HCN 6800 give us the capacity to produce all standard aluminum parts in Cell A, regardless of size. With the reconfiguration, we've also offloaded work from Cell B, which now concentrates exclusively on custom aluminum products.

Building financial peace

Local employers continue to accept Daman's offer for employees, families and friends to participate in Dave Ramsey's Financial Peace in the Workplace program held at Daman. The 13-week program, led by Krysten Shoulders, Daman's Human Resource manager, teaches participants how to become debt-free and in control of their personal finances.

"Hundreds of people's lives could be transformed through this outreach," Shoulders said.

SPOTLIGHT: Bettering lives

Living better lives. That's the goal of Daman's Better Living initiative. From fitness and financial peace to smoking cessation and social gatherings, the program strives to create an environment that helps employees live better lives. And with better living comes a more focused, energized attitude toward work, according to Krysten Shoulders, Human Resources Manager.

A Better Living committee – with employees from all areas of the company – organizes events and activities throughout the year, covering a broad range of topics and interests. Employees choose to participate in recreational activities, fitness programs, company social events, and classes on personal finance. They receive newsletters, emails and reminders about scheduled activities throughout the year.

As Daman prepares to break ground for an expansion

of its physical structure, the Better Living committee is planning enhancements to an onsite weight room, which is seeing more and more activity lately. Nearly 75 percent of employees are participating in a Weight Loss Challenge this spring. And several employees are spearheading efforts to earn Daman distinction as one of Indiana's Best Places to Work.



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Manifold News

DAMAN WINWORK NEWS

Moving to the cloud

We remember when we considered fax machines, copiers and storage for reams of paper essential to our business success. Today, technology continues to transform the way we communicate – internally and externally.

Next time you send a fax to our sales group, we'll receive it from a cloud. That's because we converted our inbound fax system to a cloud-based process in February.

"Using the cloud, we can now receive hundreds of faxes at the same time," explains Dave Jaeckel, IT manager. And with more than 150 faxes arriving every day for Distributor Services, that speed helps expedite the entire production process.

By tapping into an online fax service provider, the company has replaced two fax machines, a regular supply of toner cartridges, reams of paper and dedicated phone lines

with online faxes that arrive as PDFs. The Distributor Services team can easily convert information from the PDFs into our sales order processing and accounting programs. And everything for the order gets stored conveniently on our cloud-based server for quick, complete retrieval – from anywhere, at any time.



"We never have to physically print an order," Jaeckel says.

By March, Jaeckel expects to convert outgoing faxes to the same type of online faxing system. Twice as many faxes go out each day from Distributor Services with order confirmations, delivery tracking information and invoices. Instead

of manually inserting pages into the fax machine queue, the sender will simply direct the document to the online fax system and receive instant delivery confirmation.