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BUSINESS

INFORMATION & INSIGHT FOR GROWING COMPANIES

DECEMBER 2011

MADE *in* MINNESOTA

MINNESOTA MANUFACTURING AWARD WINNERS



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Proud to be "Made in the USA"

Congratulations to the Employees, Customers and Vendors of Aggressive Hydraulics for being a Minnesota Manufacturing Award recipient. Thanks to the Minnesota Precision Manufacturing Association and Minnesota Business Magazine for the recognition and sponsoring the Minnesota Manufacturing Awards.

At a time when many companies are running to Asia driven toward cheaper products, Aggressive Hydraulics is proud to design and manufacture application specific hydraulic cylinders domestically.

www.aggressivehydraulics.com

Minnesota Manufacturing Awards

Five companies receive top honors.

BY MAURA KELLER // PHOTOS BY TATE CARLSON

THESE DAYS, JUST ABOUT every manufacturer is facing some kind of economic challenge. From cancelled products to reduced spending to legislative changes that will affect their bottom line, Minnesota manufacturers are working hard to retain their market share—thinking outside of the proverbial box to incorporate new systems, new products, new services and embracing new innovations like never before. ¶ To recognize the outstanding manufacturers that have made an impact on this vital Minnesota industry, *Minnesota Business* and the Minnesota Precision Manufacturing Association (MPMA) have honored five companies with the 2011 Minnesota Manufacturing Awards. The winners of this year's awards (nominated by peers and selected by a panel of MPMA experts) were honored at MPMA's annual meeting Oct. 27 at the Doubletree Hotel Minneapolis Park Place.

Top Woman-Owned Manufacturing Company of the Year

Embracing her role as leader, Darlene Miller takes Permac Industries to the next level.

IN AN INDUSTRY often dominated by men, women business owners have a lot to be proud of. Take Darlene Miller, for example. As owner and chief executive officer of Burnsville-based Permac Industries, a company that specializes in components

and assemblies for aerospace, medical, transportation, food and beverage industries, Miller has worked diligently to make her company an award-winning enterprise. After emerging from tough economic times that took many companies out of the game, earning the Top Woman-Owned Manufacturing Company of the Year award is especially meaningful for Miller and her staff.

Like many companies, Permac Industries experienced its own economic setbacks due to recent economic downturn. But Miller didn't give in. Rather, she streamlined production efficiencies, expanded the company's reach with new industry certifications, and developed a leaner approach to most aspects of her business.

Today, Permac Industries is a thriving entity, with revenues up 43 percent, capital investment down .03 percent, and the total number of employees up 18

“A lot of people think that Permac is in the precision machining business, and it is. But I am really in the *people* business, in the precision machining industry.”

► Darlene Miller, owner and CEO of Permac Industries, holding a part Permac manufactures for the aerospace industry.



percent. While numbers often speak for themselves, Miller says Permac Industries has also made its mark on the industry by employing talented and dedicated employees who comprise a fun and can-do team.

“We have a reputation for our on-time delivery and quality,” Miller says. “Our team personifies ‘serve the customer,’ which we achieve by our belief in ‘yes we can.’ Our certifications with ISO 2001-2008, ISO 13485 and being compliant to AS9100 certainly help prove our quality and dedication to continuous improvement. So we continue to earn awards for our team’s achievements.”

Miller stresses that the economic dip in 2009 and 2010 was immense, therefore the company’s current strong numbers in revenues, capital investments and employee gain look great; but the reality is that Permac is only back to pre-2009 numbers—but with much leaner processes.

“The recession really did force us to evaluate our customer base and the products we manufacture, so we made the conscious decision to focus on the higher precision industries such as aerospace and medical and eliminate the commodity and low-margin jobs,” Miller says.

Miller embraces the challenge of continuous change and helping her employees grow and excel beyond their own expectations.

“The other passion I hold is to have manufacturing become a valued and recognized career that people are proud to be a part of,” Miller says. “I love my role as a leader in our industry and being blessed with working with so many wonderful people that include my employees, our customers and vendors and my other colleagues in the manufacturing world. A lot of people think that Permac is in the precision machining business, and it is. But I am really in the *people* business,

in the precision machining industry.”

Miller’s innovative spirit and energy certainly gets things done. And gets her recognized. In February 2011, Miller was appointed by President Obama to serve on the President’s Council for Jobs and Competitiveness, which consists of 27 diverse business leaders working on non-partisan ideas to bolster the U.S. economy by fostering job creation and innovation.

“My primary sub-group is high-tech education, which I co-chair with Paul Otellini, the CEO of Intel,” Miller says. “I am proud to announce we have an accelerated CNC machinist training program called Right Skills in Minnesota. It is a 16-week accelerated program including an internship program that Dunwoody Institute of Technology and South Central College will begin to offer in January 2012,” Miller says. This pilot program is expected to be rolled out nationally to help people all across the country gain the skills needed to have a career in advanced manufacturing.

“It is a passion of mine to bring more females into our manufacturing and science, technology, engineering and math (STEM) worlds,” Miller says. “So this award is a highly visible way to showcase women in this field, and that we can achieve and be as successful as our male colleagues.”



Emerging Manufacturer of the Year

Getting it right the first time streamlines Aggressive Hydraulics’ success.

PAUL JOHNSON, FOUNDER and president of Aggressive Hydraulics Inc., a manufacturer of hydraulic cylinders in Blaine, is onto something. Johnson recognizes that, these days, everybody claims to be “service-oriented.” But that adage has become his company’s calling card, its mantra—and one they need to be very good at. It is this determination to “stand out from the crowd” that has earned Johnson and his company this year’s Emerging Manufacturer of the Year in the Minnesota Manufacturing Awards.

Here’s why: Aggressive Hydraulics prides itself on manufacturing the products that other cylinder companies would

rather not, due to size, short lead time or small quantity. They also strive to “get it right the first time” due to their hands-on experience with a variety of industries and applications. And they also offer a unique combination of automated production and manual equipment for a variety of run sizes.

The company’s focused vision and purposed strategy has paid off. “We have enjoyed double-digit growth and hiring new employees every year other than 2009,” Johnson says. “We attribute our success to not having employee turnover, which carries over to us not having customer turnover.”

In 2009 Aggressive Hydraulics could have justified laying off 15 percent of their staff but they kept 100 percent

“We are not waiting for the business to come to us, we are working toward incremental growth through base customers as well as new customers.”

working 40 hours a week. “Nobody was standing around looking for work; we addressed areas within the company that made us better,” Johnson says. “We made fixtures, addressed layout and reorganized the shop for greater efficiency, painted walls and even had a customer/vendor appreciation open house event. This maintained a strong morale and positioned us to take advantage of nice business opportunities that came our way during the beginning of the recovery in the fourth quarter.”

And when it comes to their products, the company’s integrity of their designs and the quality of their manufacturing speak for themselves.

“We combine years of experience and sound engineering practices to designs which cater to performance and not low cost of production,” Johnson says. “What’s more, our batch sizes tend to be smaller in size than other manufacturers of hydraulic cylinders and our range in physical size of product is quite broad.”

Another aspect of Aggressive Hydraulics’ mark in the industry is that they help their customers grow—but in a fairly unique way.

“In many cases when we have new business opportunities with our customers, we generate a marketing campaign to help them sell their product and we foot the bill,” Johnson says. “There’s no company that I know of who does this—let alone in our industry.”

Johnson’s primary function is in the area of vision and direction as well as seeking out resources required for the





« Aggressive Hydraulics co-owners: Front: Dave Slanga, Paul Johnson, Dave Johnson. Back: Pat Roed, Shane Vos, Steve Slanga, Wes Maack.

company. But he is quick to point out that the unique combination of shareholders, who are all active in the company, have set the stage for the company's proven success.

"Our group of seven shareholders all bring different skill sets to the table," Johnson says. "We never could have accomplished what we have if my partners were all like me with the same background. We all cover different core competencies within the organization. As we've added employees, we've continued on the path of adding highly skilled and entrepreneurial thinking people with a solid work ethic."

And the company's vision for the future is bright. "We have a five-year rolling business plan which, right now, has us doubling our sales within five years. This includes employee and capital equipment requirements as well as market development plans to create business opportunities on a proactive basis. We are not waiting for the business to come to us, we are working toward incremental growth through base customers as well as new customers."

The company is currently looking at a new facility that will transform Aggressive Hydraulics from operating out of three buildings to getting them under one roof while offering room for additional expansion.

"For our company, this award is a nice compliment and positive affirmation to what we have been working on for the past decade," Johnson says. "Our employees are very proud of their accomplishment. The ownership could not be more proud of the company and what our employees have accomplished. Our employees are what make this company great, so we have the philosophy, 'What's good for the employees is good for the company, and what's good for the company is good for the employees.' With that kind of perspective, everything else is simple."



Manufacturing Company of the Year

Proven processes and innovations keep Mold-Tech's customers coming back for more.

SINCE 1978, Mold-Tech—this year's recipient of the Manufacturing Company of the Year in the Minnesota Manufacturing Awards—has been recognized for providing great customer service and engineering support while delivering a superior tool, on time or early.

"Our dedicated employees are always looking for new technolo-





« Mold-Tech President Jon Lee (left) and General Manager Pete Parks.

“In order to open ourselves up to new opportunities, we asked our customers what they liked about our services, what our competitors did better, and what services they would like to see us offer in the future.”

gies and process improvements to maintain an edge over the competition,” says Jon Lee, president at Albertville-based Mold-Tech, which specializes in designing and building injection molds for manufacturing precision plastic and silicone components. “Our on-time delivery rate averages over 99 percent, and our customers trust that we will meet their delivery requirements and provide great support for the life of the program. Mold-Tech has been ISO 9001-certified since 2000 and puts great effort into an evolving quality system that ensures utilized processes are documented and consistent.”

Earlier this year, Mold-Tech Inc was also honored with the Leadtime Leader of the Year Award by *MoldMaking Technology Magazine* in the small shop category. The criteria for this award included efficiency, performance in lead time, current and projected sales growth, innovation in the moldmaking process, industry involvement, customer service, quality and commitment.

While Mold-Tech’s concerted effort in streamlining their business processes has earned the company accolades aplenty, it has also helped increase sales 21 percent from 2009 to 2010. Of course, new technologies and process improvements aren’t the only explanations for such strong growth, especially in the midst of an economic recession. Lee says the company also focuses on existing customers and how to surpass their expectations.

“In 2009 we created a customer survey to focus on the individual needs of customers we already had,” Lee says. “In order to open ourselves up to new opportunities, we asked our customers what

they liked about our services, what our competitors did better, and what services they would like to see us offer in the future. Some of our customers indicated that they wanted us to increase tool-sampling capabilities. So in 2010, we purchased a molding press, went through master molder training and began offering in-house tool tryout.”

The implementation of the new press has strengthened Mold-Tech’s strategy of being a full-service tool provider to both existing customers and potential clients, and they have seen increased sales as a direct result.

Mold-Tech also invests in technology—continually seeking out ways to improve their lead times and quality by adding equipment/automation or changing existing processes to incorporate lean manufacturing techniques. The company also has expanded their tradeshow frequency in order to reach a greater number of potential customers and markets.

While reaching potential customers is paramount, Mold-Tech recognizes the importance of being a key player within Minnesota’s manufacturing sector and helping the next generation appreciate this growing industry. They do this by working closely with local technical colleges and high schools, helping groom students interested in manufacturing.

“Manufacturing is an important sector in the Minnesota economy, and over the last several years we have noticed a shortage of skilled workers in our industry,” Lee says. “Our goal in getting involved early at the high school level is to promote machine tool technology as a good career path and to help eliminate the outdated image of manufacturing as merely assembly-line type work.”

That said, Lee is cautiously optimistic about the future of this industry. “We have been able to increase sales by working smarter and more efficiently. As technologies continue to evolve and advance at a rapid pace, our job is to work with our customers and vendors to incorporate these capabilities into our process,” Lee says. “I believe there will always be a place in this country for a high quality mold-making company that can provide value to the customer.”

Manufacturing Innovation of Year

Top Tool Company micro-manages its future with world-renowned innovation.

IMAGINE THE WIDTH of a human hair. Now imagine cutting materials that are one quarter of the thickness of that hair. Sounds amazing, right? For the team at Top Tool Company in Blaine, working with microcomponents is an everyday event—and one at which they excel.

As a manufacturer of high-precision, micro-miniature components—featuring complex geometries and tight tolerances—stamped from ultra-thin, exotic materials, Top Tool has proven to be an innovator in world-class tooling and design-for-manufacturing. The company delivers inventive micro-component solutions for implantable medical devices, surgical instruments, electronics and more. This ISO 9001-certified company’s single-source supplier capabilities include in-house design, engineering, prototyping, validation and full-scale production.

“The Manufacturing Innovation of Year award that we received recognizes our innovative culture and our desire to help our customers become the best in the world,” says Elizabeth Abraham, chief executive officer at Top Tool, one of only four contract manufacturers in the United States using a wire machine to execute a pioneering process that cuts materials that are less than one-quarter of the thickness of a human hair, producing parts as small or smaller. This new process enables Top Tool to compete in new markets for micro-sophisticated components, used in medical implants and micro electrical connectors.

Not surprising, Top Tool is often asked: “How do you stamp something that small?”

“It’s because we have the best-available micro wire EDM capability as the hub of our operations,” Abraham says. “A wire EDM is basically a ‘sophisticated electric band saw’ that cuts or shapes metal. Instead of using a saw blade, we cut with spark erosion down to 1.5 micron accuracy.” Embracing technological innovations is at the core of Top Tool’s success. A smart-

“Top Tool has a goal to be the center of innovation for complex, precision-stamped micro-miniature components. This keeps us looking forward to the next manufacturing challenge.”



« Top Tool CEO Elizabeth Abraham and Wire EDM Director Dave Kari. Below: The stamped component shown here is a micro electrical connector used in a device that tests next-generation computer chips.



phone can operate the company's new wire EDM machine, so its operator can fish in Brainerd and still run the machine.

The company's love of "all things micro" has enticed the Top Tool team to search for the most challenging micro-miniature parts. "This frequently means working on components that most micro-manufacturers refuse to quote," Abraham says. "Some of our own people question the wisdom of this approach. The risk certainly is high. But I look at these projects as part of our survival. We need the challenge in order to continue becoming better at the micro-miniature tooling and production specialty that we've developed."

The key to Top Tool's success is prioritizing innovation—keeping it at the forefront of their strategic decisions. "We invest heavily in micro-component stamping R&D because we know that 20 percent of what we make today will be gone in five years," Abraham says. "If we stop applying creative energy, and pull back on our R&D investment, we could be 80 percent smaller by 2016."

One Top Tool innovation is the MDU—or miniature die unit—developed in response to customers with a short turnaround for stamped micro-miniature components. As Abraham explains, the MDU is an inexpensive method to manufacture a maximum number of parts within a short time frame—and at a reasonable cost. Top Tool can build the die and produce the parts within two weeks.

"To keep ahead of the curve, we stay focused on our 'risk vs. reward' philosophy of all projects," Abraham says. "We rely heavily on previous experience—as well as on systems and processes that have been put to the test—to help customers accommodate uncertainty and fluctuation. While we are large enough to meet production needs in the millions of parts, our



size enables us to be nimble and make adjustments according to the unique situations and needs that customers face. Top Tool has a goal to be the center of innovation for complex, precision-stamped micro-miniature components. This keeps us looking forward to the next manufacturing challenge.

Manufacturing Executive of the Year

Mike Schuffenhauer leads
Multisource Manufacturing
to new heights.

WHAT DO YOU GET when you combine high-level personal customer service, a broad spectrum of services and a sound quality system, with a strong, committed ownership group? Quite simply, Multisource Manufacturing. And at the helm of this exceptional organization is President Mike Schuffenhauer, this year's Manufacturing Executive of the Year in the Minnesota Manufacturing Awards.

After graduating from the University of St. Thomas, Schuffenhauer invested five years at Larson Allen, followed by an additional 13 years at Awardcraft. "Each of those companies grew quite a bit during my time with them—both organically and through strategic acquisitions."

After leaving Awardcraft, Schuffenhauer searched for an opportunity where he could parlay his experience and interest in growing a company to the next level, helping that entity realize its full potential. Burnsville-based Multisource Manufacturing, which offers a broad range of precision machining, electrical and mechanical assembly, tool and die, and equipment build services, seemed a perfect fit.

"I spent some time getting to know our people, capabilities and strengths, and have worked to get our key people into the 'best fit' position for them," Schuffenhauer says. "I also have involved them in larger goals than their own specific personal or divisional goals, all the while maintaining high levels of customer service."

Schuffenhauer is an industry leader who knows how to get the job done. "I've added a combination of energy, experience, optimism and success-driven thinking to what was a very good

"The fun part is the unpredictability and fast adaptation that is required—and possible—within a business where so many good people are vested in its overall success."


business, which needed these resources to take the next step," Schuffenhauer says. "I think I've helped the company internally by identifying the vast network of internal resources we have to help make the overall company successful. We're less focused on each location, and more on how to grow and be successful organizationally. I believe I've also helped us take more of an 'outside-in' look at the business and modify some of our customer service approaches."

Schuffenhauer stresses that the key to Multisource's success is the company's committed ownership group, who reinvests earnings into equipment, acquisitions and projects, and provides the operating group latitude to lead the business, while also providing the value of their business acumen and experience in multiple disciplines.

"Our employees also are the ones who 'make it happen' for our customers. We've built a team of key contributors who are willing to work hard to jump through what are often-significant barriers to entry, with an appropriate balance of patience and aggressive pursuit," Schuffenhauer says. "At the same time, we have maintained our smaller-business focus, realizing that many of our 'smaller' customers helped us build our company—and some of them have become very large customers."

Striving to create a company that continues to work hard, serve its customers, take care of its employees, and lead with conviction is at the root of Schuffenhauer's efforts. "The fun part is the unpredictability and fast adaptation that is required—and possible—within a business where so many good people are vested in its overall success," he says.

Schuffenhauer says that recognition like this award is the confluence of many factors—few of which are within one's control.

"It's a symbol that we're doing some things well, and the results have followed our diligent work and our continually-improving ability to adapt and change through all sorts of outside factors including the overall economy, industry segment challenges, etc.," Schuffenhauer says. "It's also a challenge to continue the progress, to grow the business and keep our momentum moving forward into the future. It means that when you work hard and listen to a lot of ideas to find the best, good things can happen." 

Photos from awards night: Turn to page 44.

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Minnesota Manufacturing Awards

More than 280 attendees turned out at the Doubletree Park Place Minneapolis Hotel Oct. 27 for the Minnesota Manufacturing Awards, presented by *Minnesota Business* and Minnesota Precision Manufacturing Association (MPMA) in conjunction with MPMA's annual meeting.

(1) Top Tool's Elizabeth Abraham and Dave Kari, awarded Manufacturing Innovation of the Year. (2) *Minnesota Business*: Art Director Dana Oelfke (left), Editor In Chief Sheri O'Meara and Publisher Stefani Pennaz. (3) Keynote speaker Toby Madden, regional economist, Federal Reserve Bank of Minneapolis. (4) Multisource Manufacturing President Mike Schuffenhauer, awarded Manufacturing Executive of the Year. (5) Multisource Manufacturing's Greg Hofstede (left), Patty Hofstede and Bill Hibbs. (6) Kevin Manion (left), Nanotech Machinery Solutions; and Don McMillan, AgieCharmilles. (7) Christine Hansen (left) and Kacey Kachelmyer, both from Epicor Software. (8) Paul Johnson, president of Aggressive Hydraulics, awarded Emerging Manufacturer of the Year. (9) Sarah Gengenback, Kriss Griebenow, John Fritz, all from Venture Bank. (10) Jon Lee, president, Mold-Tech, awarded Manufacturing Company of the Year. (11) Jack Mendenhall, Used Machinery Sales; and Dave Lundberg, Klein Bank. (12) MPMA President Bob Miller and Darlene Miller, CEO, Permac Industries, Top Woman-Owned Manufacturing Company of the Year.

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PHOTOS BY EMILY J. DAVIS



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