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Well, we made it through the first month of 2021. The waves are still coming, but, we're hoping the undertow is a bit less substantial this time around. Regardless, we'll all keep plugging away and continue to navigate the waters as best we can.

We're fresh off reading about key trends moving through the new year and they include supply chain visibility, machine intelligence, and system usability. All working pieces of Industry 4.0 – which isn't new, but, it's interesting to note a more strategic and conscious push towards smarter technologies that make the working components of many facilities more controllable by devices, which, in some respects, helps in the progression of keeping things tighter, cleaner, and more efficient across the board to help maintain the health of the company, its employees, and its customers from a physical and fiscal standpoint. We'll more than likely dive in deeper on these topics as the year rolls on... We've touched on them in the past, but, things are always changing and technology is always improving.

So how are you all doing? What do you want to see featured in The Gateway that might be of some value to the community? We're happy to hear any and all ideas.

Friendly February reminder: You can (always) download a digital (PDF) copy of the magazine on demand at our website, and connect with us on social media (Facebook, LinkedIn, Instagram) where we share all of our monthly features which enable sharing across the web, making that spotlight shine a little brighter and work a little harder. Check it out at www.thegatewaymag.com and check back often as it's updated every month when the new edition hits your mailbox!

In parting, as you flip through the pages, you'll come across the news that The Gateway lost its founder, Bill Bryson in January. We're deeply saddened to report this news. His wife (and co-founder) Sharon put some thoughts down for us, which we've printed here for you all to read.

Warm regards,



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SHARPLES: LONG RULING THE REALM OF STEEL RULE DIES



Sharples has been manufacturing steel rule dies since 1967. The company has decades of experience in all aspects of steel rule diemaking and serves multiple diecutting industries with its technologically advanced equipment.

When it comes to Steel Rule Dies, Sharples has you covered. With over a half century of experience in diemaking, Sharples has evolved into a leader in the industry of steel rule dies while maintaining a long-standing reputation for delivering superior service and quality. It has achieved success through long-term relationships with clients who depend on Sharples' commitment to quality and service. Sharples has extensive experience in many industries, working with a wide range of diecutting presses in today's market.

COMPANY SHOWCASE: SHARPLES

INDUSTRIES SERVED:

Bulky automotive interior trim
Gasket manufacturing
Electronics
Foam
Medical
Packaging

Steel rule dies are an economical way to trim various materials and are utilized for cutting several different finished products. Sharples' depth of experience as a steel rule die maker covers many different diecutting machines, including:

- Sheet feed
- Clicker
- Hand feed
- Belt feed
- Roll feed
- Inline trim
- Traveling head

LASER CUT DIEBOARDS

Laser cut dies bring consistency from the first cavity to the last with accuracy and rapid turnaround. Having a die laser cut by Sharples also adds the scrutiny of a highly skilled diemaker to ensure perfect kerf. Each die is laser cut depending on geometry and amount of knife within an area. Sharples has a large inventory of various board thicknesses and types. Wooden dieboards are stored for no less than one month to ensure stability with the environment before laser cutting. Dieboard bases can be laser cut from birch, maple, clear plastic and Rayform. Multiple lasers and shifts enable fast turnarounds to keep up with the demands of clients.



CNC BENDING STEEL RULE

In the early days of steel rule diemaking, all rule was hand bent. In the early 2000's, Sharples added computer numerically controlled (CNC) bending to its capabilities. Since that time, the company has reinvested in the best technology in the industry as well as keeping up to date with the craftsmanship that is still required. CNC technology aids in diminishing high spots in a die, dramatically affecting the die's flatness. Extra cavities of knife can easily be ordered for customers to have on hand for emergencies or maintenance.



Nicked tear strips and perforated knives can be repeated, providing customers with consistency in production. Today, Sharples has the largest array of CNC benders in the country as well as the largest inventory of knife providing different bevels, edges, thicknesses, and heights. "Bending all the Rules" is what Sharples does – it covers all heights, more than any other diemaker nationwide and has seasoned craftsmen with decades of experience to knife its steel rule dies.



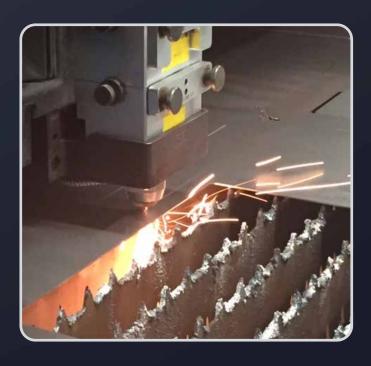
- Knife heights include: .937", 1 1/4", 1 1/2 ", 1 3/4", 2", 3" and 4"
- Wide range of knife inventory (Stock sheet available upon request)
- CNC Bending from .937 4" high

COMPANY SHOWCASE: SHARPLES



WELDING AND BRAZING

Sharples has welding experience. Welding joints are required at times for strength or to prevent gaps from occurring in higher knifed die. Steel rule dies may need supports welded to their outer frames. Dies used to cut fibrous material can have their joints brazed to help prevent buildup of fibers, which could interfere with the diecutting process. Having the ability to provide this service in-house gives Sharples the edge and versatility to provide quick turnarounds in a controlled atmosphere.

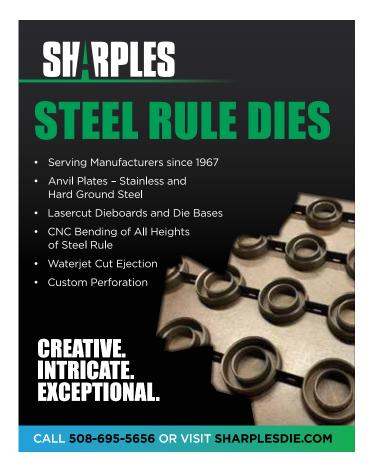


LASER CUT METAL

In 2004, Sharples made an investment in flying optic-style laser cutting, a dedicated metal cutting laser. With this capability, Sharples now offers a vast inventory of options for plates to meet all production needs. Sharples stocks ground hard plate, stainless steel, and aluminum. It also offers countersinking, drilling, and tapping. Whether a backup plate is needed for strength, a feed-thru plate to accommodate scrap removal, or a mounting plate, Sharples' ability to provide clean-cut plates makes it superior in its field.

Dedicated metal laser-cutting gives Sharples the ability to cut quality cut plates with a minimal heat-affected zone. Sharples can laser-cut steel up to ½2", stainless steel up to 5/16", and thin aluminum burr-free. Abrasive waterjet cutting of thicker steels and aluminum is also another capability that enhances versatility with Sharples' tooling. Examples include an aluminum heat-sealing fixture for a blister sealing operation or female blanking tool.

(CONTINUED ON PAGE 7)





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COMPANY SHOWCASE: SHARPLES

WATERIET COMPONENTS AND CNC ROUTING

Sharples supplies all dies with uniform cut ejection by utilizing waterjet cut technology. For those customers with intricate and contoured shapes, Sharples' waterjet cut ejection can be beneficial. The consistency of the ejection follows the shape of the blade with proper spacing, allowing for the rubber to evenly eject but not distort the part or material being cut.

With even ejection, die cutting speeds can be increased. Uneven ejection can cause problems when die cutting and can ultimately reduce the quality of finished parts. Waterjet cutting is also utilized for cutting seal gaskets for sealing tools, providing uniformity, and problem-free reordering. Sharples stocks multiple thicknesses and durometers of ejection in the market. The company has moved ahead of its competition by investing in waterjets with advanced features such as superior software, high speed, large bed capacity, and abrasive cutting.

In addition to waterjet cut parts, Sharples also offers CNC routing. Large work areas and multiple machines provide the ability to mill clearance pockets in dies, anvils, and buildups. Sharples can also provide machined locators in its tools to help find the part when diecutting.

COMMITMENT TO CONSTANTLY IMPROVING

The goal of constantly improving is achieved by consistently cross training all employees, documenting processes, and having employees understand the full line of manufactured tools that Sharples offers. The Sharples team is trained to recognize the need for executing projects efficiently on a daily basis and to understand expectations of timeliness and a commitment to quality. Sharples also strives to spend a minimum of 15 minutes per day on improving processes and/or products whether it is internally or for its customers.

All employees must understand utilization of all equipment and labor optimally with the goal of all employees to run profitable. Serving over 10 countries worldwide, Sharples continually works on efficient and economical solutions to help customers run more efficiently. In 2009, Sharples implemented a powerful and very customizable enterprise resource planning (ERP) system for job tracking, and it offers client access to its ERP system for ease in scheduling and ordering.

(CONTINUED ON PAGE 10)



Repeatable patterns of Pre nicked steel rule



Waterjet cut Die ejection



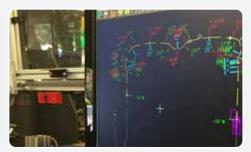
Steel rule dies for innersole inserts



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Aluminum based dies available with Sharples



CNC Bending is repeatablefiles are saved indefinitely

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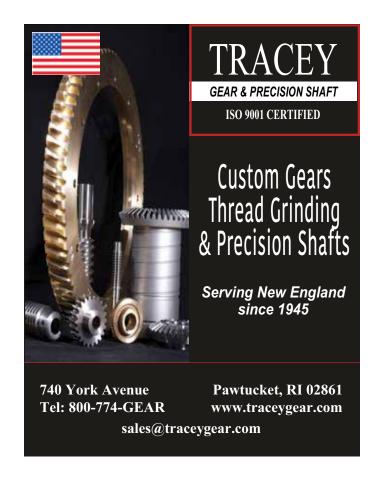
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COMPANY SHOWCASE: SHARPLES

QUALITY AND INSPECTION

There is a minimum of three to five inspection steps during the manufacturing process, from design to final inspection. Upon customer request, Sharples can prepare a custom inspection report to accompany the tooling or parts. Finished parts are inspected all the way through the cutting process, from the incoming material to first article of inspection. Following existing job ticket and specifications and providing customers with their own inspection forms completes the final inspection process.

Every customer is different. Every job is different. Sharples keeps customer specifications readily available to all departments at every stage of the manufacturing process. Specifications are continuously updated as customer preferences and guidelines change. Sharples also offers document certification through a coordinate measuring table which allows for generation of digital readouts establishing data on finished parts and tools. For steel rule die customers, Sharples also offers CNC measuring for the overall sizes of the die's knife at multiple points with a CNC probe, providing accurate reports for close tolerance dies.

LOOKING FORWARD

By continuing to be on the forefront of diemaking, Sharples moves forward and grows not by fearing change but embracing it. Sharples' philosophy is and always will be to Invest in the Best. Look for the upcoming launch of Sharples' new website that will offer technical references to address die construction questions, press leveling, and makeready for diecutting.





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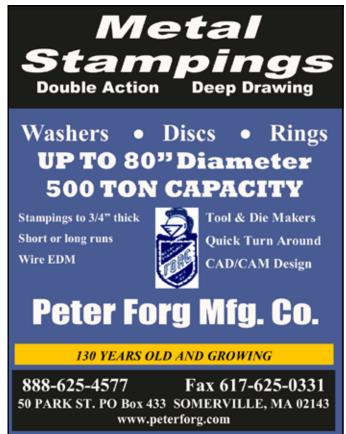
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BILL BRYSON TRIBUTE

As we started in on the prospects of a new year, we got word that the founder of this very magazine has passed away. A terrible start to 2021 for us on a personal level. Bill Bryson was a man we came to deeply respect immediately upon meeting him a couple of years ago to talk about his transition out of The Gateway Magazine. He was looking to sell it to an interested party, but he also made it clear that he'd just as presume shutting it down than selling to the wrong people. So, we knew we had to make an impression. Our approach? Just be ourselves.

Bill and Sharon welcomed us warmly into their home to discuss the history of the magazine and where we thought we'd like to see it go. He shared family stories, pictures, and trinkets of things he'd collected over the years and filled us with an immeasurable amount of wisdom of what it took to get his publication off the ground each and every month. It's no small feat. And Bill's two-decades of service to its cause is admirable to say the least. All that said, he was ready to move on in some capacity and put the magazine in the rearview. What he wished to do was get his house finished up, and hit the fishing hole a little more often in retirement. We could get behind that!

BILL BRYSON TRIBUTE

We left the house that day feeling pretty good. If nothing else, we had collected some great dialogue to file in the "story bank," as we continued about our business. When Bill and Sharon granted us the keys to the kingdom shortly thereafter, we knew we had made a couple of friends – which is something we don't take lightly.

We kept in touch as the magazine continued to operate – with a fresh new design intact. Bill was our number one fan. He'd offer criticism, but, moreover, he offered praise. He was so happy that the magazine he founded with Sharon in 1999 had renewed life, and a path for further longevity in the industry he loved.

Bill was a storyteller. And we continue telling stories with his spirit in mind.

The following is a tribute written by Sharon:

Bill was born October 17, 1940 in Chicago, IL. In 1956 his dad decided he wanted to start a dairy farm, so he bought a 150 acre farm in Middleton, NH. The family moved there on Bill's 16th birthday. He went from a school with 1,500 students in his grade to 39 in Farmington, NH.

After Bill graduated, he started working in a shoe shop where he worked many hours each week. From there he went to work in a cabinet shop where he built many different items. His many jobs included working with an electrician to wire a new plant in Rochester, to building custom homes. From there he went on to work as a purchasing agent in Dover, to a specialty tool salesman for northern New England. He also worked as a salesman for a Vermont machine shop for several years, and for a vacuum furnace builder.

Bill always wanted to help the buyers in the manufacturing industry find the right sources. Through is work and the many sales calls he made throughout his career he was led to starting The Gateway Magazine. He saw a need for something for the buyers to consult with before finding the special shop they were looking for to supply their special items which they needed to build their products. He also enjoyed writing too, so the magazine seemed to supply both. He developed a mock-up of what the magazine would be and sent it around to a few companies he had dealt with. When he got a positive response, he started his quest as a publisher. Within a few months he had a new business to focus on and put his energy into.

BILL BRYSON TRIBUTE



Bill enjoyed visiting the many shops in New England and learning about all the products made in this part of the world. He loved writing about how each of these companies were started and their business philosophies – uncovering why they did what they did. He enjoyed meeting many very interesting people throughout the 20 years he published the magazine and all the stories that came from these experiences. Traveling with him on the interviews, I got a chance to see how many things were made. We also got to spend a lot of time together in these travels and talking about what we could do to make the magazine better. He always wanted to promote items made here in America.

It was always a joy each month to see the published magazine – the final product of countless of hours worth of work. It also was great to look at all the products and companies that were located here in New England, and to be able to help make them known in the area.

Bill was always willing to share any information with anyone especially on heat treating or cryogenics. He authored three books on the subject and would answer questions anyone asked him. He was an approachable resource. After Bill retired, he spent the next year working on remodeling our home. He had it just about finished, when he fell and broke his femur bone while at a surgeon's office. When x-rays were taken his cancer was discovered. He was diagnosed with stage 4 lung cancer in April of 2020 and lost his battle with it on January 9, 2021. He will be greatly missed.

Thanks for the words, Sharon. And we're so sorry for your loss...

Bill will be missed indeed. But he'll never be forgotten. If you met him, you grew to appreciate him. More often than not, that appreciation was immediate. We still get people that comment on how much they enjoyed Bill's company and people do often ask how he's doing. For that, we're sorry for this update...

He was a straight shooter who wanted to tell an accurate story. His goal was to shed light on the manufacturers that make the industry tick in our small corner of the world. And he succeeded. We hope that we're doing the same, and that, even from his place in the sky, Bill will continue to look down at us in approval. Rest in peace, Bill.

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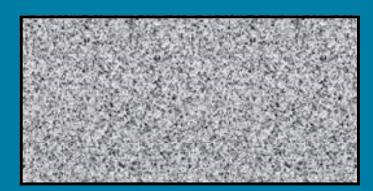
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INDUSTRY 5.0 - FIVE QUESTIONS WITH MANUFACTURING MINDS



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Five Questions with Manufacturing Minds

Give us the elevator pitch about your company. What's your primary focus? Who is your ideal customer?

GRILLI: MuShield specializes in the fabrication and heat treatment of magnetic shielding components, mainly from high permeability mumetal, and for the Aerospace, Defense and Medical industries. We are able to diagnose your magnetic interference problem, come up with a solution, then build and deliver a magnetic shield to your custom specifications. Anybody who needs magnetic shielding is our ideal customer, and we welcome to opportunity to be involved on the ground level during the design. At times, design engineers do not recognize the need for magnetic shielding in the development stages and that can bring up some issues when trying to reverse engineer the design with a magnetic shield included and limited space to work with.



What differentiates your company within the industry? What do you pride yourselves on?

GRILLI: We pride ourselves in being a one stop shop from quoting to delivery of finished goods. We will work to a design that ensures the magnetic shield will work within your parameters, both physically and magnetically. Our sheet metal hydroforming capability allows us to achieve unique geometries that, in some instances, delivers the most effective magnetic shield design for specific applications.

What are the main challenges your business is faced with? How do you tackle these challenges, and what kind of advice would you give to others in a similar position?

GRILLI: Every magnetic application we review is different. There is no sole solution for all magnetic interference problems, so we have to diagnose the problem and come up with a plan to meet our customers' specific needs. Fortunately, we have 40+ years of experience solving these problems and continually invest within the company to ensure that we have the brightest minds and best equipment for the everyday challenges we face.

What's your outlook for the industry as we look at the next 5-10 years here? Any insights you see changing the way we look at things and run our facilities?

GRILLI: As electronics start to get smaller, but continue to be sensitive to EMI, the shield designs will likely get smaller and have tighter manufacturing tolerances applied to them. We have to stay ahead of the game and ensure that we can produce parts with extremely tight tolerances. Over the last 10 years, our capabilities have improved dramatically and I expect that to continue. In regard to facilities, I expect that COVID-19 will have a lasting

INDUSTRY 5.0 - FIVE QUESTIONS WITH MANUFACTURING MINDS

impact on our day to day operations. Online meetings should become more prevalent and remote working (if applicable) is a real possibility. I believe the pandemic has shown us a different way to operate, as opposed to the norm we were used to, and there were some positives that came from it.

Outside of providing for the good of the company and the workers that make things happen, what kind of good are you guys doing out in your community?

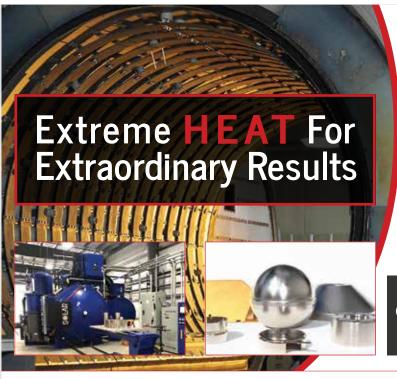
GRILLI: Pre-pandemic, we were involved with the Manchester Memorial High School's FIRST Robotics team, sponsoring them financially and donating machine time. With the pandemic that season was put on the shelf for the most part, but we look forward to supporting them again in 2021 when all goes back to normal (knock on wood.)

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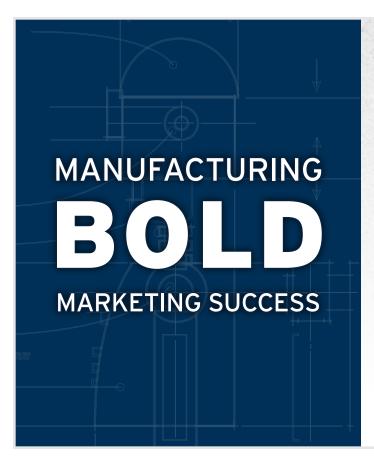
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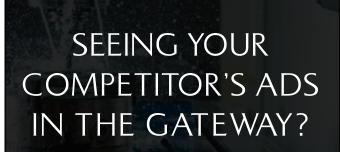




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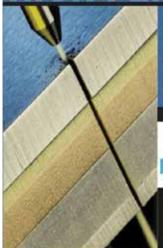
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