

TRU^f

THE MAGAZINE FOR SHEET METAL EXPERTS

06 #2020 INSIGHT

01 Indiana

New Possibilities:

A period of re-inventing,
not just adapting

02 Tennessee

Building Connections:

How relationships and technology
inspired new designs for success

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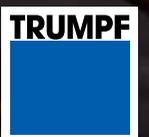
The Power of Transparency:

Drive down costs through
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A Sense of Community:

Shifting operations to support
during the pandemic



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At a time where social distancing has **become more relevant** than ever, it is important to **remember the significance** of interaction. Various studies provide insight on how social interaction between humans is linked directly to their mental and physical health. Finding ways to **stay connected** can not only increase a person's level of happiness but also reduce health risks. ■





Trade shows are held every year to **provide insight** on an industry's latest product and service advancements. **The Great Exhibition**, held on May 1, 1851 in England, was the World's first recognized trade show with over **100,000 exhibits** and **six million visitors** from around the world. From May to October exhibits included hydraulic presses, steam hammers, ironwork and more. ■

A wireframe brain is shown in profile, facing right. From the top of the brain, a large, vibrant splash of multi-colored paint (including red, orange, yellow, green, blue, and purple) erupts and spreads across the upper half of the frame. The background is a plain, light grey surface.

Creative thinking is the ability to consider something in a new way. It offers you the opportunity to **gain insight on current ideas** and problems to further enhance those thoughts and discover alternative solutions through **open-mindedness and communication.** ■



EDITORIAL



It is important to remember that each of us are facing our own set of challenges that can be elevated depending on specific circumstances. I urge you to **listen to one another** and offer your hand in support when possible - It is amazing what **the power of togetherness** can do.

The many unprecedented challenges of 2020 have called upon all of us, individually and collectively, to find courage in chaos, steadiness in uncertainty, and resolve in rapidly changing global and local marketplaces. I am truly impressed by the level of resilience, adaptability and mutual concern our customers, employees and partners have demonstrated throughout this period. And through it all we have prevailed – together. We have worked hard to keep each other safe and healthy. We have developed creative solutions to our new challenges using technologies we previously may not have had. The stories in this magazine are only a small sampling of the impressive work we have witnessed.

In this issue we speak with John Axelberg in South Bend, Indiana to gain insight on how General Stamping & Metalworks has adapted to the changes brought about by the COVID-19 pandemic and how the company continues to use these new experiences to re-invent workplace practices. We also talk with Don Gahagan to discuss the importance of building relationships and how one first impression led John W. McDougall Co. to aid in the production of emergency medical equipment. In addition, this issue takes a closer look at success stories from TRUMPF's Smart Services team amid the pandemic and highlights four customers who have gone above and beyond to support their own customers while giving back to their communities during such trying times.

It is in times of crisis that we take advantage of our insight and find new ways to support each other and strengthen our community. Thank you for your continued confidence in TRUMPF. We are proud to have you as part of our community and will continue to work diligently to support your businesses. We are here for you and we look forward to building on innovations and strategic insights to shape the future of our industry.

Peter Hoecklin

PETER HOECKLIN, PRESIDENT & CEO

TRU^e

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TruLaser Tube 7000



01

INDIANA

A period of re-invention in South Bend

NEW POSSIBILITIES

In 1922, H.P. Axelberg founded General Sheet Metal Works in South Bend, Indiana to meet the growing needs of a manufacturing boom town.

What began as a custom fabricator of dust collectors and air handling systems for wagon and automobile manufacturer Studebaker, is known today as General Stamping & Metalworks, a third-generation family business and one of North America's leading providers of stampings and fabricated metal parts.



An operator runs customer parts during the COVID-19 pandemic

Rising above the challenges

The pandemic has not only brought new business to GSM but also new challenges. “From a business development standpoint this year has been the most dynamic we have ever seen,” said Axelberg. “We have onboarded and ramped up five new OEM customers without the benefit of a single in-person meeting, and we’re being asked to do some new things that are really stretching us from an engineering and process development standpoint.” On one hand, meeting these demands has been more challenging due to social distancing requirements. On the other hand, many of the processes and technologies introduced as workarounds have turned out to be more efficient than the practices they replaced. For example, if the main content of a meeting is an on-screen presentation, it is preferable to hold it virtually because attendees can see the screen better at their desks. A belief in the power of creative destruction to enhance his company’s capabilities has been core to Axelberg’s leadership since he became President in 2005. He had added additional tube and profile processing to GSM’s portfolio in 2019, so the company was prepared for the orders of their new customers this year. And that is just one example of how GSM is constantly repositioning itself for new possibilities.



But John Axelberg does not downplay the challenges of the current situation. “Not being able to meet in close quarters has been difficult, especially when you are working with three dimensional objects like parts and assemblies,” Axelberg explained. “I never realized how much I talked with my hands until I had to make sure they were in front of the camera.” GSM has taken advantage of all kinds of digital tools and hosts frequent virtual meetings internally as well as with customers. The executive team has recently gone back to in-person meetings while keeping a distance of 8 feet between those in attendance. Axelberg also stressed the importance of “over-communicating”. “We recognize this situation calls for persistent, well planned communication because all the casual communication channels have been disrupted.” He also shared that actively listening to the needs of his employees and the challenges they are facing has been vital during this time. “We realized the pandemic was going to turn home life upside down for a lot of families, so we worked to develop tailored plans for those employees who needed them,” Axelberg noted. Fortunately for GSM, most of the workspaces in production areas were already physically distanced, alleviating the need to make any major accommodations in their laser and press brake areas.

.....
 “We realized the pandemic was going to turn home life upside down for a lot of families, so we worked to develop tailored plans for those employees who needed them”

Employees work to identify parts cut on the TruLaser Tube 7000 and remove parts cut on the TruLaser 5030 fiber



Trying times

With 98 years of business under their belt and plants located in South Bend, Indiana and Tomah, Wisconsin, General Stamping & Metalworks (GSM) has persevered through many economic crises including the Great Depression, the Great Recession and the COVID-19 pandemic today. Like many businesses around the world, GSM had to quickly adapt their operations in order to keep employees safe while continuing to meet customer needs, but it was the initial economic fallout that required the biggest adjustment. “At the beginning of April we made the difficult decision to reduce our staff,” John Axelberg, President of GSM explained. Although GSM had just completed a record quarter in March, customer forecasts pointed to a 50% drop in revenue over the next three months. It was painful to lay off dedicated employees who had been so important to our success, but the most important thing, from my perspective, was making sure they would have a viable company to come back to when things recovered.” While the pandemic put a damper on most of GSM’s existing markets, it drove spectacular growth in a handful of others – a situation GSM would soon discover.

Newfound opportunity

The company’s 36 TRUMPF machines are typically busy making parts for the lawn and garden, industrial equipment, and renewable energy industries, but during the spring and summer the urgent needs of other industries began to open doors for GSM. “We’ve had a few pleasant surprises in business development during the pandemic,” explains Axelberg. “A crisis always creates opportunities, and many of the COVID winners quickly outgrew the capacity of their suppliers.” A manufacturer of home exercise equipment contacted GSM in April, as the industry saw a surge in orders due to the mandatory closure of fitness centers throughout North America. Another was a manufacturer of hospital equipment with a commitment to producing 50,000 beds in a matter of weeks for patients directly affected by the coronavirus. “With so many things changing in the world, we will continue to develop the long-standing customer relationships we have built over the years but will always do what we can to support new customers – especially during such a challenging time,” Axelberg expressed.



Lessons learned

New obstacles create opportunities to reevaluate current practices within a business – and GSM has taken full advantage. “The pandemic has forced us to take a closer look at our business as a whole,” Axelberg said. “When the system’s under stress, it’s easier to see the weak connections where things break down and adjust structure or process to repair them.” With the company just about back to full staff due to increased demand, John recognized the positive effects many of the changes have made. “We’ll finish the year down 20% from 2019, but we are a better company today than we were in January, and we’re in a much better position to scale.”

“With so many things changing in the world, **we will continue to develop the long-standing customer relationships** we have built over the years”

Keep on moving

Since the beginning of the pandemic, GSM has worked to make whatever adjustments were necessary to provide a “business as usual” experience for their customers. That consistent, uninterrupted service has led to some significant new projects that will come online in the second quarter of 2021. Construction is already underway on a 58,000 sq. ft. expansion of the South Bend facility. “Some people think we’re crazy to be making this kind of commitment in the COVID economy, but we have to keep moving forward and stay focused on our long-term objectives,” Axelberg reasoned. In addition, the company has decided to hold onto the twenty-four-acre parcel next door despite numerous offers from developers. “The pandemic is just one of several disruptive forces rearranging the world we were so comfortable in – but GSM keeps buying steel, making parts and loading trucks,” Axelberg expressed. “When I manage to tune out the news it still feels like a great time to be in the fabricating business.”



In Brief General Stamping & Metalworks Machine Portfolio



TruLaser 5030 fiber

The TruLaser 5030 fiber is a cost-effective, high-performance solid-state laser system that brings together top of the line laser cutting features and develops reproducible, high-quality parts. With this machine, users can achieve excellent feed rates with up to 12 kW laser power.



TruLaser Tube 7000

The TruLaser Tube 7000 fiber achieves record speeds in laser cutting tubes and profiles with a diameter of up to 10 in. and wall thicknesses of up to 0.4 in. for mild steel. This flexible high-end machine expertly handles a wide range of parts and laser tube cutting applications.



TruBend 7050

TRUMPF's TruBend 7050 bends with a press force of 55 tons and has a bending length of 60 inches. The ergonomic high-speed machine's 6-axis backgauge guarantees exact positioning of components with remarkable precision.



TruBend 5320

The TruBend Series 5000 press brakes are capable of highly productive and precise bending. The fast, user-friendly and ergonomic press brakes offer innovative programming, tool setup design, and other features for flexible part production.

The customer

General Stamping & Metalworks

John Axelberg, President
25101 Old Cleveland Rd,
South Bend, IN 46628

- TruLaser 5030 Fiber
- TruLaser 5040 fiber
- TruLaser Tube 7000
- TruBend 7036
- TruBend 7050
- TruBend 5170
- TruBend 5320
- TruBend Cell 5000 w/5170 and BendMaster 150



To extend your application spectrum, **TRUMPF offers other suitable product enhancements** for every machine.

02

TENNESSEE

*How relationships and technology inspired
new designs for success*

BUILDING CONNECTIONS:

Great country music connects to listeners' hearts and captures their imaginations. For more than 80 years, John W. McDougall Company, Inc., a third-generation family-owned manufacturing company based in "Music City" Nashville, Tennessee, has perfected the art of understanding what customers need and using those insights to deliver inspiring solutions that transform dreams into reality.



From left to right: Don Gahagan, Vice President, Jason Gooch, Production Manager/TubeLaser Operator, Jamie Johnson, Sales Manager



An emergency order

In January 2020, a delegation from waste-to-energy company, Enxor Bioenergy Company, toured the John W. McDougall (JWMCD) Company's 100,000 square feet of recently renovated manufacturing space. During the visit, JWMCD Vice President Don Gahagan showed the delegation photographs of the shop before its three-year, multimillion-dollar investment in technology and lean manufacturing initiatives. Enxor not only marveled at the transformation, but was equally impressed with the precision sheet metal work JWMCD was achieving with new TRUMPF machinery. When the visit ended, neither JWMCD nor Enxor knew that the meeting, arranged by Keith Burnside of TRUMPF distributor HART Machine Tools to showcase JWMCD's technology, would inspire a solution to an international emergency.

Two months later, the COVID-19 virus swept the country. Enxor wanted to help save lives and decided to redeploy its operations to produce much-needed emergency ventilators. Recalling the positive impression made during its winter visit, Enxor turned to JWMCD to produce the sheet-metal parts for the prototypes and ventilators.

Fortunately, JWMCD had stayed open during the pandemic due to its importance to the construction industry. Even after putting measures in place to maintain social distancing, and staggering shifts to keep workers safe, JWMCD was able to produce the precision parts quickly using its TruLaser 1040 fiber laser cutting machine and TruBend Center 5030 panel bender.

"Enxor had a very tight deadline since they needed FDA approval before they could begin selling ventilators," Gahagan explains. "We produced prototype parts within two days. And they had a working ventilator in about three weeks, which is amazing! On our end, it meant late nights with a reduced workforce, but our people did a tremendous job getting parts out accurately and on time."



"We produced prototype parts within two days."



The company's TruLaser Tube 7000 investment enabled them to reduce weld processing time by 20%-30% on one project.

80 years of building

Building relationships and embracing a sense of duty has been part of JWMCD's culture since John W. McDougall, Sr. started the business in 1938. In fact, the roots of JWMCD's sheet metal fabrication business grew out of an alliance McDougall formed during World War II, when he traveled with a manufacturing friend to military bases in the Midwest, assembling Quonset huts, which he outfitted with stove heaters that required exhaust pipes produced from sheet metal.

"Partnerships are key to our business," says Gahagan. "We've always been relationship driven. I was on the purchasing side for many years, so I often say to my sales team, 'don't just bring donuts because other sales reps bring them...do something extra-ordinary and go the extra mile to build lasting relationships. Take the time to get to know our customers and understand their needs – both on a personal level and business one – and show them we care.'"

Insight to investment

In the 1980s, JWMCD's job on the iconic spherical shaped centerpiece of Walt Disney's Epcot Center solidified its reputation as an innovator. Later, architects identified shortcomings inherent to aluminum composite material and envisioned a new approach that would eliminate the plastic core. Inspired by this challenge, JWMCD developed a single-skin sheet metal panel product and used TRUMPF equipment to manufacture it.

"Around that time, Keith Burnside from HART dropped a TruMatic 1000 fiber brochure on my desk," Gahagan remembers. "He said, 'this is the future of the architectural market.' So, TRUMPF was already on my mind. The combination machine's flexibility made it a no-brainer. The punch gave us the ability to form perforated panels and the laser can cut odd shapes – both of which are common in the architectural industry. This helped us meet changing market demands for new products."



"If we're going to thrive, not just survive, we need next-generation technology"

Thrive, not just survive

Alec McDougall, the third generation to run the family business, was committed to the big investment required to take the company to the next level. "He said, 'if we're going to thrive, not just survive, we need next-generation technology,'" recalls Gahagan. In addition to the TruMatic 1000 fiber, the company purchased a TruBend Center 5030 in 2017. "We looked at four or five panel bender brands, but the TRUMPF was the only machine that could make our panels," he adds, noting the combination of customer service, reliability, flexibility and precision that sealed the deal.

The new equipment has improved the bottom lines of all three divisions of JWMCD – architectural, industrial and processing - by helping production run faster and more efficiently. Another benefit of the technology has been its invigorating effect on workers, many of whom have decades of experience at the company. "The owner's reinvestment back into the business energizes them," Gahagan asserts. "After realizing the new machines would save their jobs, not cost them, they were excited to see what they could do."



“We’re always looking to where we want to be. Innovative technology drives us to dream of the possibilities to get there.”



Don Gahagan stands alongside just a few of his resilient workforce

Unexpected benefits

To fill additional market needs and expand processing division capabilities, JWMCD added a TruLaser Tube 7000 in September 2019 and a TruLaser 1040 fiber in January 2020. “We have the area’s only job shop tube laser,” Gahagan says proudly. “As a job shop, we do lots of different work, including for the automotive, fitness, and cell tower industries.”

Tube laser cutting capabilities created unexpected advantages outside of the processing division, too. After discovering the tube laser could eliminate the need for fixturing on some welded parts, one innovative industrial division employee redesigned an automotive paint booth housing system using tabs and locating holes to reduce weld processing time by 20 to 30 percent.

On the architectural side, the tube laser developed a revenue stream that increases the company’s competitiveness. “Now, we can create the backup system for our perforated panels, not just sell the outside skins,” explains Gahagan. “The less time needed to install, the better. Instead of drilling holes onsite, we laser cut the tubing and everything lines up perfectly. A recent project that once would have required a two-month installation only took two weeks.”

Advancing opportunities

Customer deadlines are always important to JWMCD’s business, but particularly right now. “We’re seeing a lot of work come back from China,” says Gahagan. “As businesses get back up and running, everybody needs their parts immediately. Sometimes that means thousands of parts in just days. Our team has done a stellar job meeting such critical needs, and TRUMPF technology helps us.”

In the future, Gahagan plans to add more TRUMPF equipment, likely new laser and punching machines, and then automation. “We don’t settle where we are,” he emphasizes. “We’re always looking to where we want to be. Innovative technology drives us to dream of the possibilities to get there.”

In Brief

John W. McDougall Company, Inc. Machine Portfolio



TruMatic 1000 fiber

The TruMatic 1000 fiber combines all the advantages of punch and laser processing. This innovative compact laser machine punches holes, bends flanges, and forms threads, and can cut out formed sections with the highest precision.



TruLaser 1040 fiber

The TruLaser 1040 fiber enables robust and economical laser cutting. The easy-to-use machine employs an energy-efficient laser to cut a variety of materials reliably and consistently. Automated load/unload features may be added.



TruLaser Tube 7000

The TruLaser Tube 7000 fiber achieves record speeds in laser cutting tubes and profiles with a diameter of up to 10 in. and wall thicknesses of up to 0.4 in. for mild steel. This flexible high-end machine expertly handles a wide range of parts and laser tube cutting applications.



TruBend Center 5030

The TruBend Center 5030 processes a wide range of sheet metal parts with outstanding flexibility. The panel bender’s integrated tool changer prevents setup errors, reduces setup times, and enables cost-effective single part production. It can bend even complex parts semi-automatically, while ACB technology ensures the first part is perfect.

The customer

John W. McDougall Company, Inc.

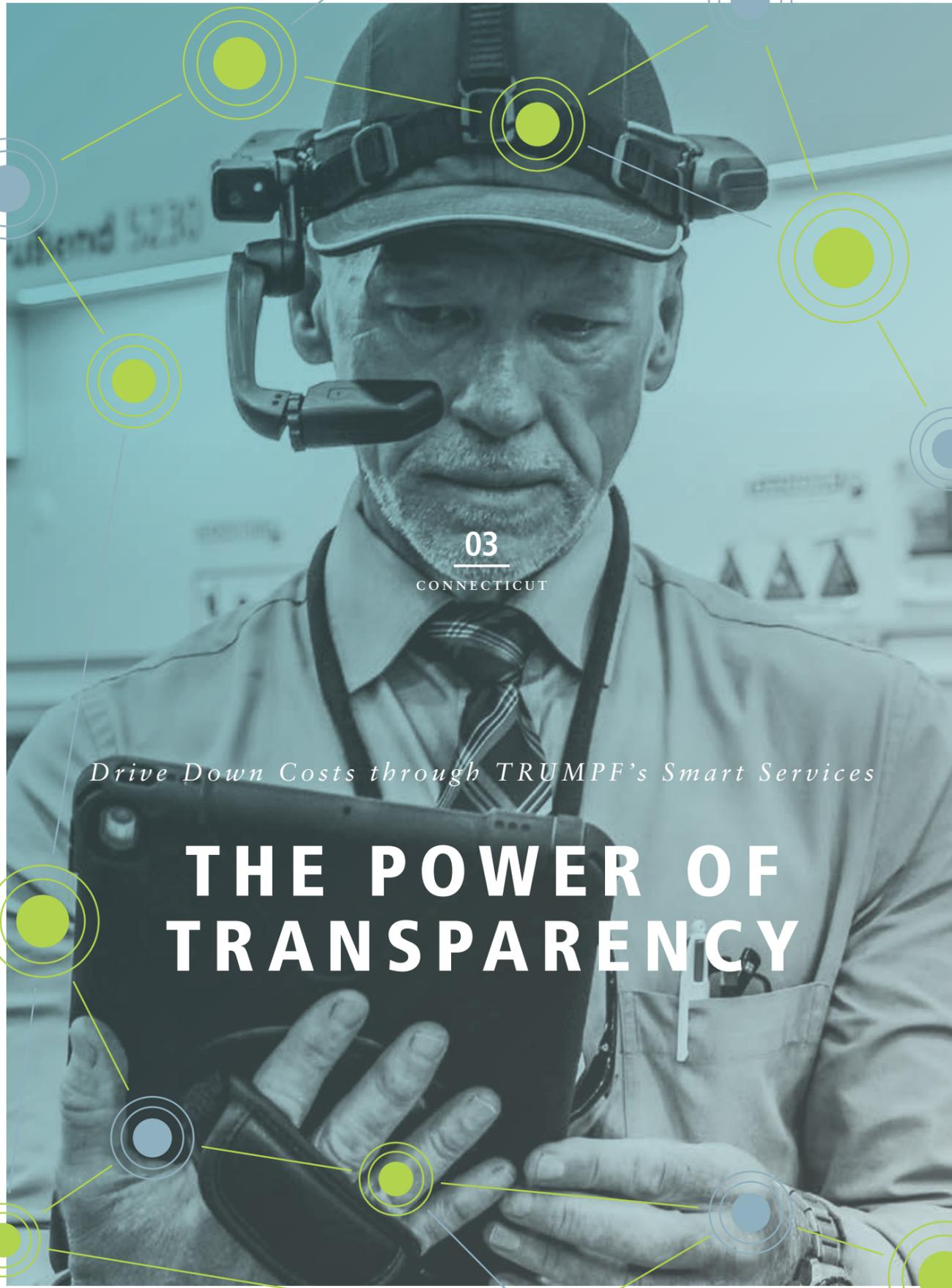
Don Gahagan, Vice President
3731 Amy Lynn Drive, Nashville, TN 37218

Phone: 1-615-321-3900
www.jwmcd.com

- TruMatic 1000 fiber
- TruBend Center 5030
- TruLaser Tube 7000
- TruLaser 1040 fiber



To extend your application spectrum, **TRUMPF offers other suitable product enhancements** for every machine.



03
CONNECTICUT

Drive Down Costs through TRUMPF's Smart Services

THE POWER OF TRANSPARENCY

It all started with Smart Glasses five years ago. Jim Rogowski, then Vice President of Service, saw an opportunity to use the new augmented reality technology via Smart Glasses to digitize and improve TRUMPF's service processes. Not because TRUMPF does not want to help customers in person, but because the company believes in the power of speed and getting customers with a machine problem up and running again as fast as possible.

SMART SERVICES

Since then, TRUMPF has brought 400 Smart Glasses to customers in the North American market and has developed a full Smart Services portfolio that is constantly growing and evolving. TRUe takes a look at the daily interactions between TRUMPF customers and the Smart Services team.

Proactive service thanks to the cloud

8:00 AM

Jason McKusick, a Service Analyst in the Condition Monitoring Center of TRUMPF, checks his dashboard and notices a red alarm on a TruLaser 5030 fiber. The machine has been showing an increasing trend of scattered light during the last three shifts even though the operator had done everything by the book. Maybe a spot image on the protective glass? Jason picks up the phone and calls Matt Brunner in Manitowoc, Wisconsin and shares his suspicion. Matt, Co-Founder and Chief Operating Officer at Brunner Fabrication and Jason have been talking regularly over the last months. Matt's laser is one of 20 machines in TRUMPF's Condition Monitoring pilot phase. All machines are connected to TRUMPF's Condition Monitoring Platform. They send status data every hour to a database in the cloud. Jason analyzes and interprets this data, looking for patterns that could signal upcoming failures and ideally prevents them. Through his close customer contact, he can verify if what he sees is a proper interpretation of the customer's reality.

9:15 AM

Jason gets off the phone with Matt Brunner for the second time that day. It was indeed a spot image. "We were able to avoid what could have become an exchange of the entire cutting unit. By monitoring the machine closely and fixing the root cause of the problem we could prevent a major issue," Jason says. TRUMPF also provides insight into the data of all connected machines to the customer. Via MyTRUMPF, customers are able to access a Condition Report if their machine is connected. The reports provide a performance history of the last seven days of the machine. More on that later in the day.

Increased visibility via TRUMPF Visual Assistance

10:30 AM

Kevin Morrow, an in-house laser Service Technician with TRUMPF, takes his next case from TRUMPF's service information system: A customer's laser will only reach 85% of its target temperature. Kevin reviews the information and calls the customer. After a quick conversation with Chris Wilmot from Rugby Manufacturing, they both agree to a live video session via TRUMPF Visual Assistance. Chris does not have Smart Glasses onsite but has downloaded the app on his mobile device. Kevin feels the additional visibility will help to solve the case and avoid a service mission.

Even though TRUMPF has always been convinced that the Smart Glasses are a useful tool for service communication with its customers, it has required some time to fully ramp up the solution. The travel restrictions due to the pandemic, however, made the technology a vital module in TRUMPF's service capabilities. Since March 2020, TRUMPF has performed, on average, 80 Visual Assistance missions via Smart Glasses or the mobile app per month, with 80% of the cases being solved remotely. Machine problems can be solved faster and safer under the current circumstances.

11:00 AM

30 minutes later, Kevin ends the video call with Chris. "We found that the water was too cold in the TruDisk because a valve was contaminated with algae. After Chris cleaned everything, the machine is up and running again. I don't think we would have been able to avoid an onsite mission without TRUMPF Visual Assistance. It gave me the visibility I needed on the problem," said Kevin. And while everybody hopes that it will soon be possible to travel without restrictions again, our service routines have clearly shifted to Remote Support. TRUMPF Visual Assistance and the Smart Glasses are here to stay.

"We were able to avoid what could have become an exchange of the entire cutting unit."

Smart Glasses are utilized during a remote service mission



An in-house service technician works to provide remote machine support via TRUMPF Visual Assistance



TRUMPF will continue to develop its Smart Services portfolio. Annette Doyle, who has recently been appointed the new Vice President of Technical Service for TRUMPF Inc., wants to focus especially on enhancing the predictive service capabilities and increase the ratio of proactive service cases that can be solved before they become a major issue: "In manufacturing, you want to be self-sufficient. With the help of Smart Services we will accomplish this for our customers."

Immediate resolution thanks to technical guides

2:00 PM

Case number 6414744 is submitted to the TRUMPF service information system via the Service App. The TRUMPF Service App, an app to register service cases and follow their progress, has been the most prominent product for the Smart Services team and has been widely accepted by TRUMPF customers. Dan Smith from Central Plains Steel submitted the case. He included the error code that the machine showed. Thanks to the latest feature of the Service App, Dan has immediate access to the corresponding Technical Guide via the Service App. Technical Guides provide advice on many of the most common error codes. It takes the customer step by step through the procedure to solve or start solving the problem themselves without having to wait for assistance.

Dan follows the instruction in the document but needs additional help from the TRUMPF Inhouse Technician Dana Jensen who reaches out to him soon after. They solve the case together, but Dan had a head start and it also helped him to improve his knowledge about the machine.

Convenience and transparency with myTRUMPF

3:30 PM

In Gwinner, North Dakota, Tom Lund, Production Supervisor at Bobcat, holds his shop floor meeting. Before the meeting, he logs into MyTRUMPF to check on the Condition Reports of his connected machines and prepares the meeting with the data he sees. "I run a 10-week rolling chart to have transparency on our machines' uptime and use the information to inquire about any unanswered downtime. The reports for example have made transparent that we were having X-axis issues on one machine. We actively scheduled a service visit before the problem shut down the machine." After his shop floor meeting, Tom confirms: "The reports show us things that the operators don't necessarily mention actively, like low cutting gas pressures and multiple collisions. They really help us to improve our uptime."

Of course, customers can also use MyTRUMPF to order parts. The e-shop in MyTRUMPF verifies whether the right part number was put in for the machine a customer wants to order for, shows part availability and also gives customers specific pricing. Besides ordering, customers can access shipping information for their orders via the portal, download software updates and see all service cases from the service app in MyTRUMPF. That gives customers most of the relevant information and features they need to run their TRUMPF equipment.

04

TODAY

Shifting operations to support during the pandemic

A SENSE OF COMMUNITY

Planning for the future is a vital part to a company's success. Each year businesses put strategies in place in order to achieve specific goals. But **how do you stay the course in the middle of a global pandemic** that came without warning? In this section, TRUMPF customers share insight into how they quickly shifted business operations to **adapt to the needs of their customers while also helping to support their communities** during this time.

A skeleton from nose bridges produced on .025" 3003 aluminum.



Hercules Industries

Mike DeRammelaere, Branch Manager Commercial Division

Hercules Industries in Denver, Colorado has been in business for over 58 years. What began as a family owned HVAC supply house in 1962 is now an employee-owned manufacturer and distributor of high-quality HVAC sheet metal products and equipment. Today, the company's manufacturing/fabrication arm is no stranger to custom orders, which made them the perfect candidate for a few unexpected jobs during the COVID-19 pandemic. The team at Hercules worked to produce almost 75,000 aluminum nose bridges on their TruLaser 2030 fiber for local organizations like the Denver Mask Task Force, an organization created to assemble masks for essential workers throughout Denver and the surrounding areas. Their efforts did not stop there though – At noon on the Friday of Easter weekend, Hercules Industries received a call

from Apollo Sheet Metal on behalf of the Army Corp of Engineers. They needed over 1,000 ft. of spiral piping and fittings for the HVAC system in a Colorado events center which was being transformed into an overflow-facility for patients effected by Covid-19. Employees began the project that day. "It was an easy yes for us," said Michael DeRammelaere, Branch Manager for Hercules Industries Commercial Division. "Our guys worked until 10:00pm that Friday night and came back in for another 10-12 hour shift bright and early Saturday morning to complete the project." Hercules Industries three-year strategic plan encompasses three important criteria to meet, one of them being "Common Good." It is safe to say the company certainly has not fallen short in this area, especially in a time where the community needed it most.

\$98,013.16 in sales from the Off Grid Rack was donated to the Coaches vs. COVID-19 fund.



Sorinex Exercise Equipment

Nick Lewis, Production Manager

The COVID-19 pandemic has forced strict lockdowns throughout the world, causing many businesses to bring their operations to a halt. Some of the businesses affected include schools and universities, retail stores and restaurants. Fitness centers were also among those affected - leaving many individuals looking for a way to maintain their gym activity. Sorinex Exercise Equipment in Lexington, South Carolina certainly felt peoples' immediate demand for an alternative exercise solution when the company did several months of sales overnight. "We certainly did not expect this," said Nick Lewis, Production Manager. "At this point we knew we needed to offer something to customers that allowed for less fabrication and in-turn, shorter lead times." With this realization, Sorinex worked to develop the Off Grid Rack, a standard design using their TRUMPF TruBend 3120 as well as their TruLaser 1030, 2030 and 5030 machines. The Off Grid Rack enabled Sorinex to meet the needs of many individuals in a quick and affordable fashion. The company also has strong relationships with many individuals in the fitness industry who were negatively affected by the pandemic. As a result of those relationships, Sorinex donated the profits from the Off Grid Rack to Coaches vs. COVID - a charity organized to support COVID-19 prevention and treatment research. In addition, the immediate need for individuals to workout at home coupled with the closure of local non-essential businesses, brought Sorinex to help support those within the community. "I know a few of the local business and restaurant owners in Lexington," Lewis explained. "Because business picked up for us, we thought it was a great opportunity to offer their employees some part-time work." Some of those hired during the pandemic, have joined the Sorinex team permanently, some even as full-time employees!

Metal Solutions

Joe Cattadoris, President

What originally started as a small family owned job shop in 1954 has over the years become a successful contract manufacturer. Still family owned, Metal Solutions in Utica, New York has always taken pride in its diverse customer base and the relationships they have built over many years. Little did they know, the beginning of this year would enable the company to further grow their twenty year relationship with customer Aeromed Inc. "Aeromed was inundated with orders for upper room UV disinfection units from New York City hospitals when the pandemic hit," explains Joe Cattadoris, President of Metal Solutions. "With some of our workforce idle due to the shutdown of some of our customers, we were able to jump in and offer our support." Metal Solutions had always worked to fabricate the sheet metal components for Aeromed's upper

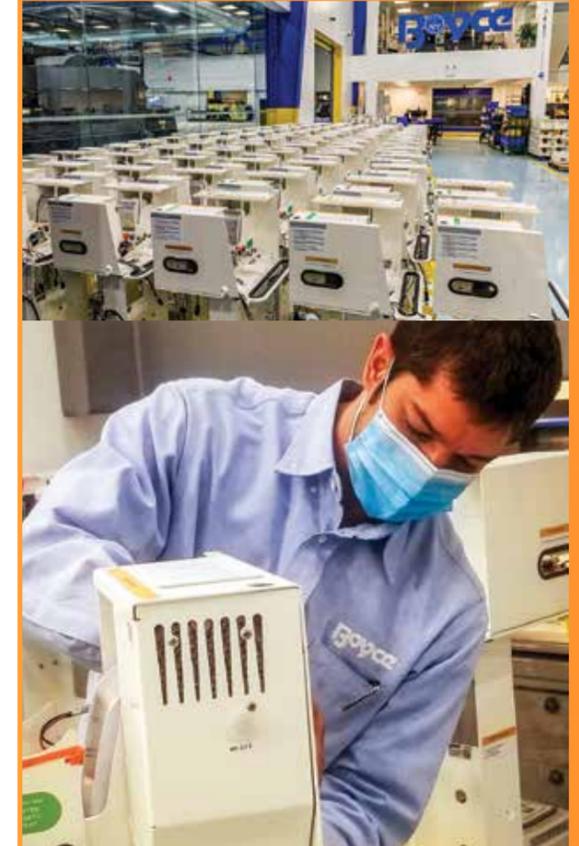
room UV disinfection units, but now found themselves utilizing their TRUMPF punching technology to manufacture the products from start to finish. Joe and his team not only became a full contract manufacturer for the product but began building additional air filtration equipment as well. "Our employees were incredibly resilient during this critical time," Cattadoris said. Over 500 of the units produced by Metal Solutions have been installed in one New York City hospital that was in the heart of the pandemic. In addition thousands more have been installed throughout the US and Mexico in settings such as schools, restaurants and offices. Cattadoris expressed, "It is great to make parts for our customers, but it has also been great to build a complete product, know where it is going, and to know who it is helping."

Boyce Technologies

Charles Boyce, President

Back in late February, before many knew the seriousness of the pandemic, Boyce Technologies was deemed essential as the company works to manufacture emergency communication systems for the MTA. Shortly after, they found themselves to be essential for a different reason – the manufacturing of ventilators for New York City. Charles Boyce saw the impact brought on by the virus and knew his team could be the answer for the shortage of ventilators in the city. "I saw the city crumbling around us and thought, 'what are we going to do to help?'" Boyce recalled. The company began producing tens of thousands of face shields, but he was confident they could be doing more – and he was right. After a few internet searches, the team familiarized themselves with Bridge Ventilators and by late March had designed a ventilator which was awaiting and ultimately received FDA approval. The team at Boyce Technologies worked 24 hours a day, 7 days a week, while many employees stayed overnight on campus in order to make the need for this critical piece of equipment a reality. With no prior expertise in the manufacturing of medical equipment, the company worked closely with TRUMPF to laser weld an important component for the ventilators – the housing units. Throughout the project, the units were manufactured on Boyce Technologies' TruLaser Robot 5020. "We were on a mission to save New Yorkers," Boyce said, and that's exactly what their dedication throughout this pandemic has helped to do.

Out of the thousands, here's a look at just a few of the ventilators produced by Boyce Technologies



Upper room UV disinfection units in action at Utica College





Interesting. Worthwhile. Surprising.



The new TruBend Cell 5000

Always pushing the boundaries of innovation, the newest TruBend Cell 5000 with TecZone Bend software can have a new part programmed and ready for production in as little as 20 minutes – the fastest on the market. How you might ask? TecZone Bend rapidly evaluates all aspects of the bending process and delivers a finished program for the operator to run in. No robotic teaching is required making the run in process simple and straight forward. With the upgraded TruBend 5000 series press brake in the Cell comes the servo-hydraulic drive system, reducing power consumption by 50% and is 20% more productive than conventional hydraulic drives.



Tube programming made easy

TRUMPF has developed new 3D programming software for tubes with open and closed profiles. The integrated Tube Design software makes working with open and sharp-edged profiles even easier than before. With just one click, users can open Tube Design files in the programming software and the software will create the NC code while loading the file. It also offers additional features such as the ability to automatically program the tapping of parts, as well as calculate the laser's cutting path and parameters such as laser power and speed. The result is displayed in the form of a simulation where users can make changes to the program in this simulation with the click of a mouse. The software makes the changes immediately and continues the simulation from that point.



That's a job for the sorting guide

What order does this part belong to? Which machine should it go to next? Today, questions like these can be handled by the Sorting Guide. Featuring a camera system and large screen, this assistance system helps operators with the task of removing and sorting sheet metal parts on the pallet changer of 2D laser cutting machines. The screen, which is mounted above the pallet changer, provides the operator with the relevant information on their cut parts with just a glance. This eliminates the time-consuming task of cross-checking everything with paper documentation as the Sorting Guide registers which parts have been removed from the machine and updates them in the TruTops Fab manufacturing execution system.



Narrow nozzle for welding

TRUMPF has improved the coaxial nozzle of the TruLaser Weld 5000 automated laser welding cell. The nozzle supplies shielding gas to the welding process, which reduces oxidation in the weld bead. Thanks to its new, narrow design, it reaches the weld point better than ever, regardless of what direction the laser and optics are moving. The coaxial nozzle can now be used for both heat conduction welding and deep penetration welding. It makes use of a stream of compressed air known as a crossjet, which protects the machine optics against the vapors generated when the laser penetrates deep into the material.



-8%

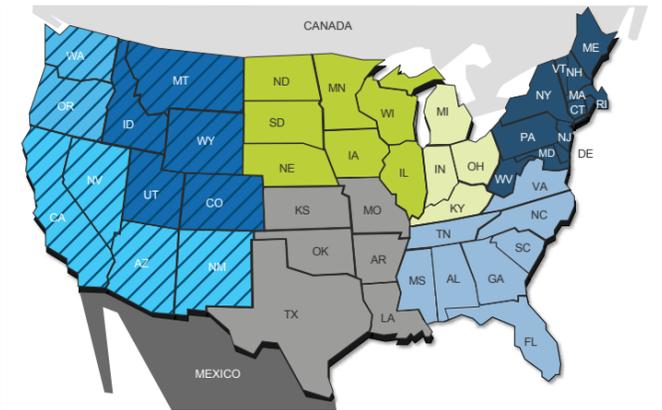
Decrease in sales

The TRUMPF Group recorded a decline in sales revenues of 8 percent to 3.8 billion dollars in fiscal year 2019/2020. In addition to experiencing a slowdown in the global economy since the fall of 2018, the Coronavirus pandemic has further intensified the company's decrease in sales. TRUMPF's three largest single markets worldwide were Germany with sales revenues of 671 million dollars, followed by the US with 539 million dollars and the Netherlands with 528 million dollars. Measured against the previous year, the number of TRUMPF employees globally has remained similar with 14,325 employees.



New VP of Technical Service

Annette Doyle joined TRUMPF Inc. in 2002 as a project engineer in the Service Department. Since that time, she has held several management positions for the company, among them, head of the Machine Assembly Department. In 2015 Ms. Doyle was appointed Managing Director of TRUMPF Great Britain before returning to the United States as National Service Director in 2018. As of October 1, 2020 she was named the Vice President of Technical Service where she succeeds Jim Rogowski and is responsible for customer service, spare parts and training in this role. Ms. Doyle holds bachelor's degrees in Business Administration and Mechanical Engineering as well as a Master of Science in Technology Management.



TUS MT Regional Sales Manager Territories - FY 20/21

Tobias Kuehnle	James Rogowski	Dennis Kaminski
Vince Iozzo	Shane Simpson	Craig Summers
Luis Colunga	Brian Welz	Larry Johnson

Sales territory changes

As of October 1st, 2020 TRUMPF Inc. has realigned the areas of responsibility for the company's machine tool regional sales management team to ensure optimal coverage for customers across the US.

Jim Rogowski joined the TRUMPF Inc. sales team as Regional Sales Manager for machine tools in the Northeast territory. In this role his responsibility includes the direct sales management of the New England states as well as the management of TRUMPF's sales representative company Mid Atlantic Machinery, in the states of Pennsylvania, West Virginia, Maryland, Delaware, New Jersey and parts of New York.

Shane Simpson's territory has shifted south to include the southern region of the US, working with Hart Machine Tool and also now includes the state of Florida. Brian Welz, previously responsible for Florida, has relocated to Texas and is responsible for the Midwest region and the partnership with Sterling Fabrication Technology in Texas and Louisiana and Icon Machine Tool in Oklahoma, Kansas, Missouri and Arkansas. Vincent Iozzo assumed sales responsibility for the Western region and within his role is also responsible for TRUMPF's Technology Center located in Costa Mesa, CA.

Aha!

ADAPTING COMMUNICATION AND GIVING BACK

This section highlights a few things TRUMPF has achieved since the uncertainty of the pandemic struck

495

service missions

were performed in North America
using TRUMPF Visual Assistance



TRUMPF designed, produced and
donated over

500



face shields to the community

Since April we have trained

676

students

within 119 virtual training
classes and counting



145K

face masks

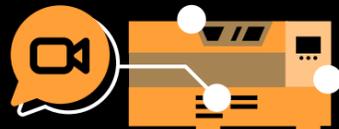
were purchased to ensure
employee safety

More than

90

**machine
demonstrations**

were held virtually to date



TRUMPF Mexico donated

900



masks to nonprofit organizations

10,000

re-usable masks



were donated to a local school system in Connecticut

pARTgallery



Technology transformed into art. Presenting parts in a new light is something we do in every issue of TRUe. This time we take a fresh look at **cutting lenses**. Photographer Bertram Schädle took this TRUMPF spare part out of its familiar environment and placed it in an entirely different setting.

INSIGHT PROGRESS

Gino Pepoli was born on November 16, 1921. He can speak four languages and can understand a fifth. Even though his hearing is fading, his long-term memory is amazing. In spite of COVID-19, but also because of it, Gino and I have been spending time together. You might think with the need for social distancing this would be just the opposite, but fortunately for us, that is not the case.

Gino was born in Cesena, Italy near the river Savio and insists that nearby Bologna has the best pasta in all of Italy. Gino often tells me about the many places he has experienced in his lifetime. He grew up in a French village called Villerupt, several kilometers from the supposedly impenetrable French fortification known as the Maginot Line. On May 10th, 1940, with the commencement of the German occupation of France, Gino and two of his four sisters, Stella and Rosa, together with his parents started walking south with other families and small wagons. They boarded a crowded train that was used for carrying livestock and goods and ended up in a village called Le Puy en Velay with its colossal statue of Our Lady of France. From there Gino was sent to work in a factory at a place nearby called Le Creusot.

After the war ended, Gino lived in the port city Marseille in southern France for ten years where he repaired large machines used in the packaging industry. The port of Marseille is called "Le vieux port" which means "old harbor". The old harbor was the headquarters of the French Foreign Legion in Algeria before Algeria became independent. Gino served in the French Foreign Legion for three years as a cook with 120 Legionnaires. "I am a mechanic not a cook," Gino explained. "I need a cook and the cook will be you," replied his superior. During these days, Gino learned that flexibility is a key success factor in life.

Some years later, Gino came to New York City where he met my mother and father, my brothers and sister and my wife Carole and our children. Over the years, Gino became a part of our family and has amazed us with his experiences. He recalls that on August 15, 1951 he attended a concert in Marseille when a cold and bitter wind known as the

Mistral began to blow through the square. The music had just started and Gino recalls how people seemed to suddenly disappear. It was an extraordinary moment because it was so unusual as the Mistral never happens in Summer. Gino described to me recently that New York City in the months since the coronavirus outbreak reminded him of Mistral. He can also remember hearing about the horror of the Spanish flu of 1914 from his aunts and older sisters. Today, Gino copes with the coronavirus by wearing a mask and washing his hands. Keeping six feet apart is sometimes difficult as Gino prefers an arm when he is walking. He worries about the coronavirus and feels sorry for all the people who have died or who are suffering. He does not fear catching it, but he does think about those who still have so much life to live. There is so much to see and so many people to meet and share a meal with he tells me. He is optimistic that similar to the Mistral, this unexpected pandemic that blew in will soon pass.

Gino lives in West Hartford, Connecticut now - not far from TRUMPF's factory in Farmington. Because of his expertise in welding, Gino has been eager to add the viewing of TRUMPF's TruLaser Weld machine to his long list of experiences. After seeing the machine and speaking French with our manager Matthieu Prou, Gino said to me, "Your machine does all the work." "All Matthieu and I did was look through the window and voila!"

-Burke Doar



TRUe #06

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