

Company

ARKU makes its supply chain more resilient

Investments and increased personnel safeguard our delivery capability.

ARKU Headquarter, Baden-Baden (Germany) - The shock was profound: Three out of four German machinery manufacturers sometimes could not deliver on time. According to a survey by the German Ifo institute, the manufacturers lacked materials and components. ARKU has taken decisive action in regard to ensuring efficient lead times for North American customers.

„Since the pandemic, the global supply chains have been strained. This also

resembled a complex puzzle game. The situation became exceptionally stressful for employees because the “detours” in parts procurement were costly and labor-intensive. Thus, tracking the schedules continues to be quite time consuming. ARKU has invested in a new ERP system to better monitor parts supply and help alleviate this problem.

In addition, Hellriegel and his team have been tackling multiple issues

this can be highly expensive: Because of the scarcity, electrical components can often cost five to ten times the normal price.

ARKU continues to adapt to the problematic procurement situation

ARKU has hired additional staff to monitor the scheduling and seek alternative procurement options for critical components to cope with the situation. “We communicate far more

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Embracing the future: Transforming the modern workplace

The shortage of skilled workers coupled with the desire of employees to work remotely has changed the landscape of today's manufacturing workforce. Like many of our customers, we have had to adapt how we work in order to remain an attractive workplace. From purchasing new automation equipment to making our office more appealing, we are constantly looking for ways to improve and make ARKU a better place to work. Read how Boss Precision (p. 2) and Frontier Steel (p. 3) identified manual processes which could be improved with ARKU equipment.

We also continue to be competitive by investing our time and energy in new technologies. Learn about our coil laser offering (p. 3) and our vision robot (p. 4) for two examples of how we offer automation in manufacturing. Robots have proven to be great companions to existing employees by taking over the repetitive, undesirable tasks. We are pleased with the amount of interest these products have generated, and this reaffirms our commitment to developing them further.

We are ready for what's next!


Nicholas Miller
President of ARKU Inc.



What is still missing from this machine, and where can we get the parts? Questions like these keep Tim Bertsch (left), Purchasing Manager for coil lines, and ARKU Purchasing Director Andreas Hellriegel even more on their toes than usual.

disrupted our project management and delayed machine deliveries,” reports Andreas Hellriegel, Purchasing Director at ARKU. “A shortage of steel was followed by a shortage of electronic parts. Even today, we continue to experience one or two surprises. However, we are now better prepared to handle situations like these.”

At times, completing the machines

simultaneously. ARKU has been paying in advance to acquire critical components: The purchase order for these components is being issued while the engineers are still designing the machine. Today, ARKU keeps more parts in stock than in the past to compensate for fluctuating delivery times. ARKU also uses alternative procurement sources when a machine requires a specific part for completion. However,

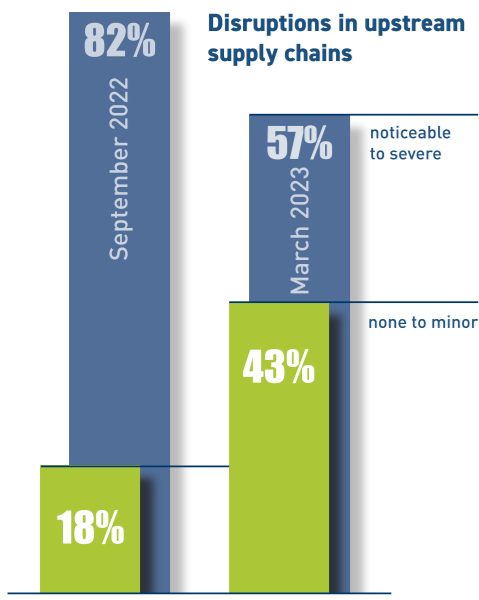
with our suppliers,” says Tim Bertsch, Purchasing Manager at ARKU. “A close and cooperative network with suppliers and customers is helping us to regain control of the situation. We have also received tips from customers about which sources still have specific components.”

The industry's supply capabilities have since improved. According to a survey

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by the VDMA (Machinery and Equipment Manufacturers Association), almost every machine manufacturer was affected by supply bottlenecks during



autumn last year. In contrast, 57 percent of the companies surveyed stated that they were still suffering from "severe" supply bottlenecks in March 2023. As such, ARKU's purchasing department's situation remains somewhat tense.



The inventory needs to be as high as possible to compensate for when suppliers cannot deliver. In line with this, ARKU is also investing more in the stocking of critical supplies.

Close collaboration between customers and suppliers will remain crucial

in the future to enable the company to rapidly react to problems, as the danger of further disruptions in global supply chains has not disappeared. That is why ARKU continues to monitor the situation closely.

ply chains has not disappeared. That is why ARKU continues to monitor the situation closely.

Leveling & Deburring

Automating critical processes

How Boss Precision trusts in automation to excel their sheet metal fabrication.

Spencerport, NY - In New York State's metal fabrication industry, one company's name has a special ring to it: Boss Precision. When a decline in raw material quality led to extra and labor-intensive manufacturing processes, the company decided to step up its own leveling and deburring operations.

Boss Precision, a leading metalworking company headquartered in Spencer-

port, New York, provides high-quality metalworking services to customers throughout the United States. These services range from aerospace components, all the way to specialized medical equipment. To meet the demands of today's ambitious marketplace, the company must rely on high-quality metal. This became even more essential as customer standards for flatness and surface quality continued to rise.

Consistent results and workflows

The company took action to reduce its dependence on metal suppliers for both purchase price and raw material quality, focusing on more than just economic efficiency. Boss Precision also aimed to provide customers with uniform and consistently flat and deburred products. The solution? Leveling and deburring - ideally with machines

from the same manufacturer working side by side. According to Chad Howe, Senior Engineer at Boss Precision: "The fact that both machines could be supplied and maintained by the same company was very attractive."

Boss Precision opted for a FlatMaster® 88 and an EdgeBreaker® 3000. For leveling, Boss previously used a press brake to flatten plates and parts up to 3/4 of an inch thick. Thinner materials, such as 1/4 inch, went through a plate roll. However, this method often produced uneven and inconsistent results, along with longer production times. When it comes to deburring, this process was completed prior via angle grinders. This proved to be very time-consuming and inconsistent. The EdgeBreaker® on the other hand, provides a safer work environment as well as consistent double-sided deburring and edge rounding results.

Matt Ollies, Production Manager concludes: "We are now able to achieve consistently good leveling and deburring results while at the same time filling the shortage of skilled labor in the operation".

www.bossprec.com



Flatness is key (from left to right): Eric Miller, Sales Engineer at ARKU Inc., Chad Howe, Senior Engineer at Boss Precision, and Matt Ollies, Production Manager at Boss Precision in front of the FlatMaster® 88.

Deburring

Heavy duty Pittsburgh steel

Frontier Steel achieves consistent deburring and edge rounding results for carbon plate.

Neville Island, PA - In roughly 25 years, Frontier Steel has steadily evolved from a small local business to an ISO-certified steel service center with customers in four states. Now, the company is increasing its productivity with the ARKU EdgeBreaker® 4000.

Russ Kolesar, Plant Manager at Frontier Steel, speaks in quiet yet proud tones as he reflects on Frontier Steel's two decades of sustained success. The company was acquired by Samuel, Son & Co. in 2013. "We started in a small warehouse with just the three owners, a secretary, and a few sales people," he recalls. "And now, we are 75 people operating in a 125,000 square foot facility."

A solid commitment to innovation and automated steel processing has been essential for the company's steady growth as well. In 2008, Frontier Steel became one of the first regional companies to use a plasma/oxyfuel cutting & machining center machine for a wide range of plate applications. This gained



The attention is in the detail: Chuck Weber, Maintenance Supervisor at Frontier Steel (left), Russ Kolesar, Plant Manager at Frontier Steel (middle), Denis Weinfurter, N.A. Marketing Manager at ARKU Inc. (right).

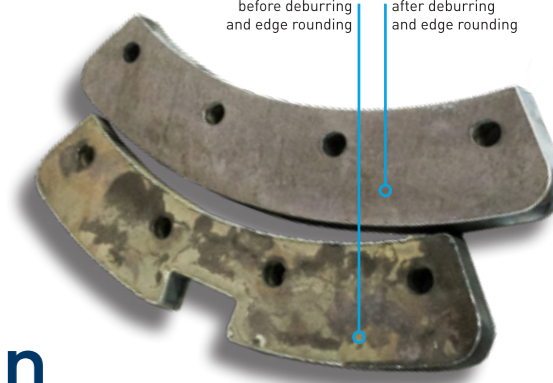
the company massive recognition from customers in the energy, railroad, and construction sectors.

Speeding up deburring

As the orders kept coming in, Frontier Steel faced new challenges. "We were

cutting faster than we could deburr the parts," Russ says. This was due to the manual work involved with angle grinders, which is a time-consuming process. "We needed to take deburring to the next level - efficiently, safely and consistently," says Russ. ARKU's technology came in handy when Frontier Steel started looking for the right equipment in 2018. Russ already knew the company from trade shows and additional research, so he soon sent the first samples to Cincinnati. Given the outstanding results, Frontier Steel opted for the ARKU EdgeBreaker® 4000. Its double-sided deburring and edge rounding made it the go-to solution for Frontier Steel's high-volume production needs.

www.samuel.com



Coil Lines

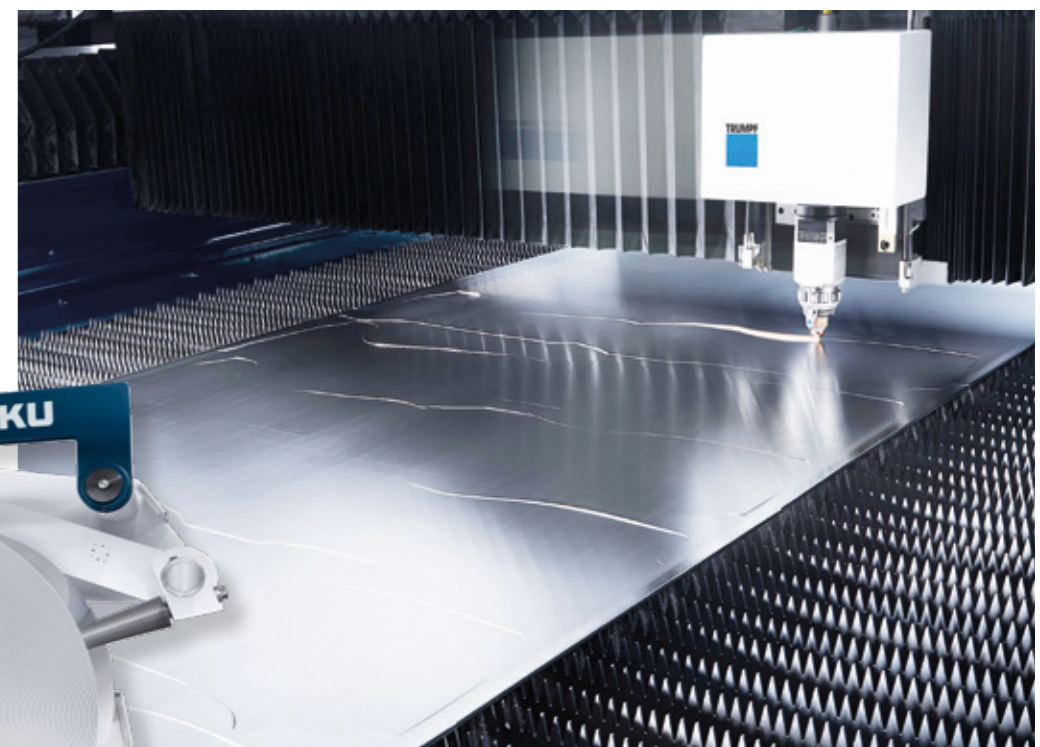
Reduced parts costs for series production

Coil-fed laser blanking lines vastly reduce waste when producing medium batch sizes.

Baden-Baden (Germany) - Stamping facilities work with large quantities of coil materials. In contrast, lasers are ideal for flexible sheet metal processing. Small batches are produced from the sheet metal. However, there is no sheet metal which matches perfectly to various products. This means that the manufacturing process can, at times,

produce a lot of waste from the expensive material.

Combining fast lasers together with coil lines provides an economically appealing alternative in the case of frequently changing products. In this constellation, laser cutting systems fed with strip material reduce waste



Working with coil material has many advantages for sheet metal processors. Coil-fed laser blanking lines make producing medium quantities economically viable.

by up to 30 percent. This reduces the customer's material cost by a corresponding amount. In addition, these systems also provide higher machine uptimes than systems which process sheet metal. That is why ARKU and TRUMPF have partnered to jointly develop a coil-fed laser blanking line. Interested parties and potential users can gain more valuable insights from September 11 - 12, 2023 at the McCormick place in Chicago, IL. You don't want to miss out, see you all then!

Picture source: TRUMPF Group

No time for travel but still want to see machines? No problem!

Are you looking for a way to test your parts without leaving your facility? Look no further! ARKU is proud to offer virtual parts testing for both leveling and deburring. The experts would be pleased to offer you a personalized consultation based on your specific application. See the capabilities of the ARKU machines first hand without the hassle of having to travel. What are you waiting for? Scan the QR code and register for your consultation today!



Achieving flatness and stress relieve without a machine purchase: Contract work is the answer

Interested in contract leveling? The Leveling Center is here to help you with all your leveling needs. ARKU processes a very wide array of parts, sheets and plates at the North American headquarters in Cincinnati. Contact Mary Simpson (mary.simpson@arku.com) for more information.



Tools at your fingertips: The ARKU web shop

ARKU always strives to offer the best service to its customers. That is why the company implemented a web shop. This state-of-the-art site offers high-quality tools for your deburring machines. Various brush and belt types in a broad range of grits and sizes are available around the clock.



Parts handling

Autonomous leveling and deburring

Self-learning robots load and unload sheet metal parts.

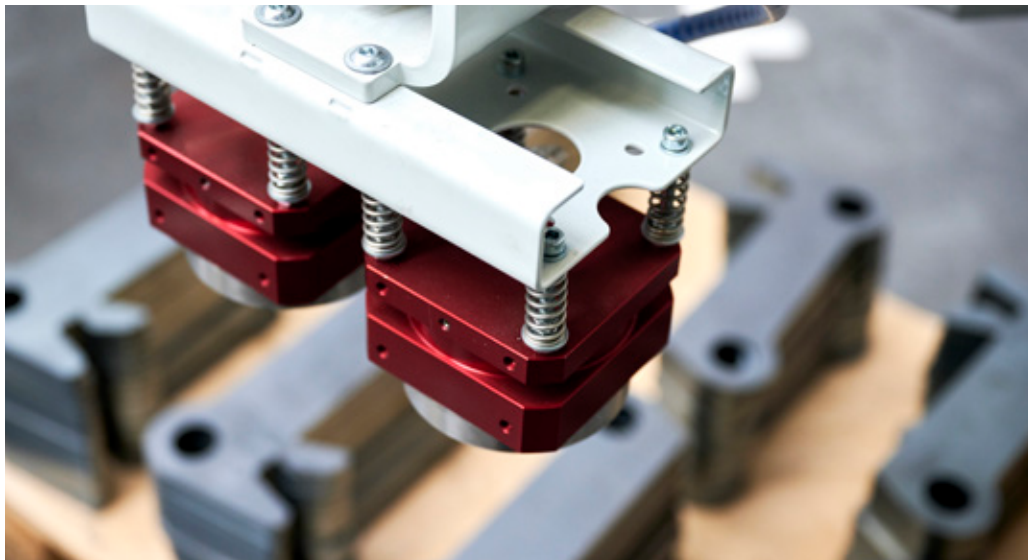
Cincinnati, OH - Sheet metal parts can be so large, thick and heavy that they are extremely strenuous to handle. Especially because employees spend all day repeatedly lifting these parts.

Employees often still have to do the heavy lifting when loading and unloading the machines, and also when transporting the parts between systems. Fortunately, an entire range of tools exist to help: Lifting magnets, chain hoists,

ARKU goes even one step further with its leveling and deburring machines, because the repetitious loading and unloading is the perfect task for robots. Additional technology further increases their productivity. For example, self-learning robots can move parts of different thicknesses and materials with the help of cameras. The employees only have to position a pallet with parts next to the system. The robot utilizes the cameras to detect the stack height, posi-



This example also shows how using a robot for leveling or deburring can help to compensate for the shortage of skilled workers.



The robot identifies the stack height, position and orientation of the parts and picks them up effortlessly.

cranes or robots help to lift the heavy sheet metal parts. Unlike humans, they are still just as fit at the end of their shift as they were at the start. Plus, the right equipment improves ergonomics for the skilled workers at their workplace.

tion and orientation of the sheet metal parts. It then selects the right gripper and lifts the blanks onto the machine. After either leveling or deburring, it removes the parts again. This reduces the amount of repetitive, routine work for the employees, freeing them up to handle other jobs.

Mary Simpson receives industry award

Seventh annual Women of Excellence Award in the metal industry.

Although manufacturing is a predominately male industry, the Census Bureau reported that in 2022, women in manufacturing hold one in four management positions. Women are making great strides in the ever-

year for the ARKU Leveling Center. Mary is one of 35 honorees for the Women of Excellence Award. In her own words: "Working in manufacturing is a fascinating and rewarding career choice." No challenge is too



Mary Simpson would like to hear about your manufacturing challenges and show you first hand how to solve them.

evolving manufacturing industry, and ARKU can certainly attest to this. ARKU employee Mary Simpson (Toll Processing Sales) was honored in the Seventh annual Women of Excellence in Metal Forming & Fabricating Award, deservedly so. In 2022, Mary's hard work led to a record-breaking

difficult for Mary, as she overcomes all obstacles with ease; consistently striving to provide only the best service. Mary comes to a positive conclusion: "It is great going to work and doing something you genuinely love."

Sustainability is central to ARKU's success

Protecting the environment is one of the guiding principles at ARKU. The company is committed to following sustainable working and development practices and to optimizing the usage of energy and resources. This

carefully extracted and disposed of according to EPA guidelines. ARKU also engages in recycling, and just finished building an electric vehicle charging station. By engaging in activities like this, ARKU sets an



The EV charging station can be used for visitors. It is outfitted with a Tesla charger as well as a third party charger for a wide range of vehicles.

environmental preserving mentality is reflected in the Environmental Management System (ISO 14001:2015). This certification was received in 2022.

ARKU practices sustainability in numerous ways. For instance, the processing equipment in the state-of-the-art Cincinnati, Ohio facility produces no by-products other than dust from deburring. This dust is

example for future generations and companies.

ARKU believes the future begins today, that is why the company makes every effort to do its part. Contact us if you would like to learn more about our improvements.

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