

# InfoMAX

The leveling and deburring experts

No. 53 / 2019

## Deburring

## A big leap forward

Smoother parts, prospering business - thanks to the EdgeBreaker®

Durant, MS - To make driving as comfortable as possible, cars need the most precise adjustments of all their wheels. This is where Hunter Engineering Company comes into play: the company is well-known across the industry as an

From the initial laser cutting to powder coating and all the way to the final assembly: Hunter Engineering in Mississippi covers all processing steps in-house. Having more than 70 years of experience, Hunter knows that good

to cables and hoses. Second, sharp edges and rough surfaces aren't ideal for the powder coating process, so again, we had to manually address those." Again and again, Hunter was employing many additional steps to



Close eyes for precision: Matt Hathcock, Value Stream Manager of Operations at Hunter Engineering Company (left) and Nathan Brown, Sales Engineer at ARKU Inc. (right) are inspecting a part after being processed by the EdgeBreaker® 4000.

expert for cutting-edge automotive service equipment - be it lift racks, alignment systems, tire machines, balancers or brake lathes. To meet its standard, Hunter relies on an impeccable quality of its parts. The ARKU EdgeBreaker® 4000 aids them in being able to deliver the best products to their customers.

parts are crucial for a perfect final product quality. To stay true to that claim, they were committed to take their deburring process to the next level.

"We previously cleaned parts with hand-held grinders and sanders, but this process was unsatisfactory on several levels", says Matt Hathcock, Value Stream Manager of Operations at Hunter. He continued, "First, parts come off our cutting processes with sharp edges. So we had to manually address those edges to prevent any danger to our employees and any issues in our assemblies, like damage

prevent issues with paint adhesion. Third, the hand grinding process in total proved to be both time consuming and expensive.

### Increasing overall throughput

When Hunter began to look for an automatic solution, they encountered ARKU at a trade show. "Their performance stood out," Hathcock recalls. After some test runs, they decided on the EdgeBreaker® 4000. "ARKU had the only machine we felt was robust enough to withstand our continuous operations. The machine meets and exceeds our customer's requirements for quality and manufacturing velocity." Since it went into operation in January 2019, the part deburring throughput has clearly improved. Workers enjoy

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### Future oriented

There is plenty to be excited about at ARKU right now. Not only have we developed and released new deburring machines over the past year, but we have also begun integrating robots with our leveling and deburring machines. We see this as the next logical step in helping our customers improve not just their sheet metal parts, but also their material handling. Another exciting topic is the announcement that ARKU Inc. will be moving to a larger facility early 2020. This expansion will help us better serve our contract leveling customers and allow us to increase the number of demo machines customers can come and see.

But don't wait until we move to come see our machines. You can visit us in Chicago this November at Fabtech. We will be exhibiting both a leveler and a deburring machine. We'd love to see you there.

Nicholas Miller  
President of ARKU Inc.





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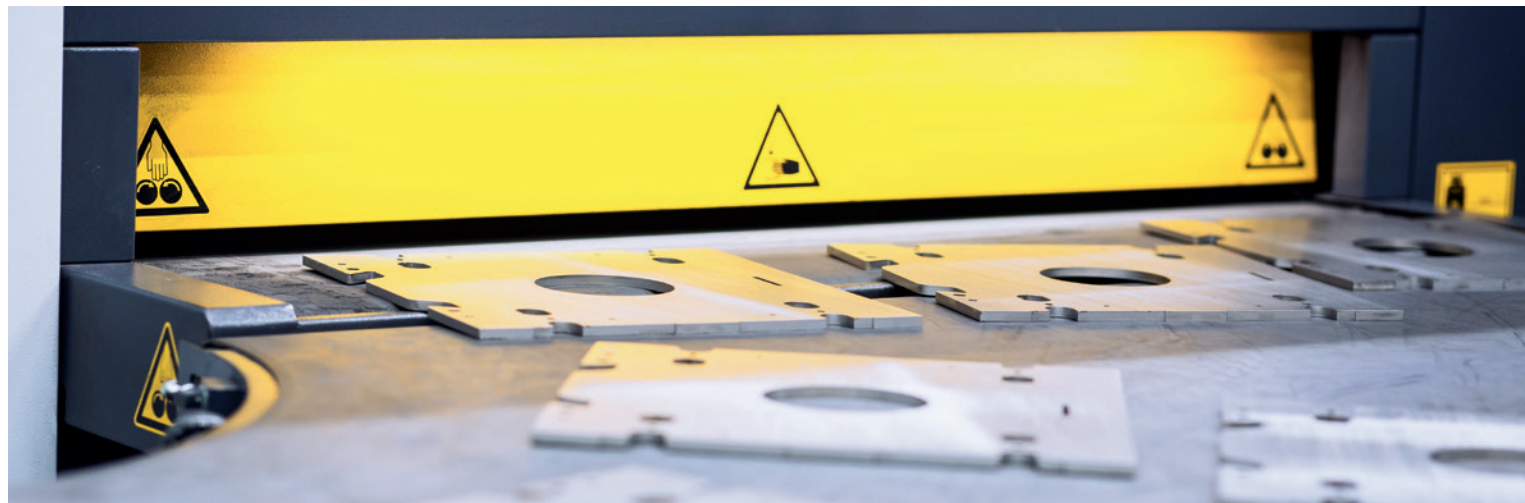
the ease of operation and added safety. At the same time, they meet production goals easier. Additionally, the training on the machine was easy and straight-forward, Hathcock confirms: "It took only a few days for them to learn to operate and maintain the EdgeBreaker® 4000. They all enjoy operating this machine."

On top of that, the machine increased productivity and parts quality. Because every part leaves the EdgeBreaker® 4000 in the same condition, downstream processes go much more efficiently. All parts now fit perfectly into the fixtures without any additional treatment, which leads to even higher quality weldments and no rework. "This reduces costs significantly," Hathcock says. Further, the overall throughput

increased tremendously compared to the manual process. There is one more thing Hathcock appreciates about the EdgeBreaker® 4000: "When we guide our customers through our facility, the

machine is a great showpiece. It stands for our investment in quality." This will help drive Hunter's business, he stresses: "The internal gains we have had are greatly reflected in our productivity

and manufacturing velocity. The deburring machine automated our manual processes and ensures quality and the safety of our employees and installers."



The EdgeBreaker® 4000 from ARKU is capable of processing high quantities with no problem.

## Material handling

# The precise eyes of the robot

The Vision robot accelerates material handling with levelers and deburring machines



A reliable worker: The Vision robot lifts the parts and places them precisely on the roller conveyor of the FlatMaster 88®. The leveling process can start immediately, without any additional manual correction.

It can see what it is handling: The Vision robot from ARKU takes leveling and deburring automation to a new level. It scans every single part individually and controls the gripper arm autonomously. In particular, companies pro-

cessing small and medium quantities benefit from a new option for increasing their productivity.

Robotic colleagues are beneficial for sheet metal fabrication. They deli-

ver their full benefits especially with standardized processes. However, frequently varying part sizes and weights challenge the capabilities of their programming. The smaller the batches, the less economical the robots become.

The Vision robot for ARKU levelers and deburring machines is therefore a good solution.

## Profitable even for single-shift operations

The integrated camera technology forms the heart of the Vision robot: It examines every part, checks the geometry and then aligns the magnetic lifting arm. Parameters such as the position, shape, size and weight of the parts can vary within certain limits without having to reprogram the robot. Human interaction with the machine consists only of an initial setup. An employee places a pallet with the stacked sheet metal parts in the defined handling area and then starts the leveling process by configuring only a few settings on the control panel. It is no longer necessary to monitor the system while it is running.

The Vision robot demonstrates its full capabilities with heavy or large parts. It can effortlessly handle weights of 100 kilograms (220 lbs) or more as well as materials up to 50 mm (2 inches) thick.

The robot is compatible with ARKU's entire portfolio. Plus, ARKU offers a retrofit service for its FlatMaster® or EdgeBreaker® models. Over the last year, some of our customers have already been relying on the robot's vision system to keep their operations running smoothly.





## Parts leveling

## Fulfilling the claim

Precision Marshall Steel boosts its productivity with the FlatMaster® 55



(From left to right) Tom Sedlak, Senior Vice President at Precision Marshall Steel, Denise Slates, Senior Production Support Associate at Precision Marshall Steel and Denis Weinfurter, Marketing at ARKU Inc. are all inspecting a part after leveling.

Washington, PA – For Precision Marshall Steel, the phrase “manufacturing deluxe products” is more than just another motto. For more than 70 years, Precision Marshall has been a well-known manufacturer of premium quality ground flat stock, tool steel and alloy plates. To live up to its claim, Precision Marshall decided to ramp up its leveling process.

The main reasons for this change can simply be summarized with the following terms: more productivity and less maintenance. In more details, Denise Slates, Senior Production Support Associate at Precision Marshall, explains: “After some years in operation, our old flattening process led to more and more down times. This forced us to fall back on manual flattening and thwarted many projects.” On top of that, the old machine could only level a very small range of parts sizes – which limited its flexibility.

As Precision Marshall was actively looking to expand their in-house leveling capabilities, they found ARKU. “We knew ARKU for their expertise and reliability. This is what we aimed for,” says Mr. Tom Sedlak, Senior Vice President at Precision Marshall. After a few test runs, Precision Marshall then decided to purchase the FlatMaster® 55-80 in 2016.

After three years of operation, the machine has fulfilled all the expectations. It works more reliably and with higher productivity. “One of its main advantages is the automatic conveyor. It gets parts through much faster than before,” says Sedlak. The machine can also handle a variety of sizes, therefore allowing even larger parts to be leveled. “All in all, the FlatMaster® 55-80 is a big step to fulfill our claim. It improves us in both quality and quantity,” Sedlak adds.

## Deburring

## EdgeBreaker® 3000 – Twice the machine power for laser-cut and punched parts

Double-sided processing in just a single pass

For ARKU, the Fabtech 2019 is the perfect opportunity to present one of its latest developments in the field of deburring machines: the EdgeBreaker® 3000 for laser-cut and punched parts. “The current developments in sheet metal fabrication show a clear trend towards stable and efficient processes. The same applies to deburring. We meet these needs with our portfolio expansion”, explains Ewald Hund, Head of Development at ARKU.

The new deburring machine features two sequential processing units which deburr and round the cut edges on

both sides in a single process. This eliminates the need to run the parts through the machine a second time, saving around half of the working time. Even large quantities can be handled quickly, therefore saving time. “The part costs are significantly below the level of other approaches or manual processing”, emphasizes Hund.

The patented brush change click-system in the EdgeBreaker® 3000 provides further benefits. It enables quick and easy replacement of the abrasives and, thus, rapid and flexible adaptation to the specific deburring task. In addition,



Double-sided deburring and edge-rounding for laser-cut parts in one process with the EdgeBreaker® 3000.

the automatic calibration system measures the abrasive consumption and compensates for this automatically. The operator does not need to intervene.

### Are you in need of certified used equipment?

ARKU offers a variety of refurbished machines, which are available on short notice. All machines are rebuilt by certified service technicians. Contact us today to setup material testing and find the right machine for you!



### Toll processing from ARKU

Are you in need of leveled and/or deburred, edge-rounded parts/sheets? ARKU is your one stop shop for all your leveling and deburring needs. Contact Chad Ellis (Toll processing manager) - chad.ellis@arku.com or simply call +1 513-387-0586.



Coil lines

## When flat is critical, coil leveling is too

Cincinnati, OH – The demand for certain auto parts to be extremely flat has increased. Because auto parts supplier and fineblanking press manufacturer Feintool produces a large volume of transmission and seating adjustment components, it stamps them two-out to double output. But that means stamping the parts out of a wide coil. Therein lies another problem: Coil flatness is hard to achieve in a very wide coil. But a flat part facilitates a smooth transition from gear

said. Another part family Feintool makes are seat adjustment components. Modern seat adjuster mechanisms consist almost entirely of fineblanked components, the company states. “These seat adjuster components, such as height adjustment levers, seat rake adjusters, and reclining mechanisms, are among our core competencies,” Reich relayed. Consumers are demanding more convenient adjustment mechanisms, he added.



(From left to right) Lars Reich, Executive Vice President of Sales & Marketing at Feintool and Nicholas Miller, President at ARKU Inc. are very pleased with the final product after feinblanking.



Maintaining extreme flatness is mission-critical for transmission components to ensure smooth shifting from gear to gear.

to gear, or an easy seat adjustment – so it is essential. To tackle both of these challenges, the manufacturer installed an ARKU tandem coil leveler line. The global company with 15 production plants around the world is a publicly traded company with around 3,000 employees and \$700 million in annual sales. Two plants are in North America, in Cincinnati and in Nashville. The two plants combined produce almost 1 million automotive components every day. Complex fineblanked and formed components are essential for efficient and modern automatic transmissions and hybrid drives. “Everything needs to work perfectly in those transmissions and that’s why everything starts with the flat part. If you don’t have a flat part, you don’t have a product basically,” Reich

“We run many different parts families. We need the flexibility to run almost any product. If a customer needs a part 2 mm thick, I need to be able to meet that demand. “Now we have one machine that covers up to 4-mm material thickness and then the second machine levels 4 to 12 mm. By having the tandem, we can basically work the full spectrum of materials, from 1 to 12 mm. It allows us to maximize the full capacity of its powerful and expensive fineblanking press”, Reich said. Some cost and space savings were realized also because the company can use only one decoiler. Each leveler can be run independently. “We can use one or the other leveler all with one decoiler. So it’s the same footprint.”

### Imprint

Masthead / Publisher: ARKU experts in leveling and deburring  
 Masthead: Albert Reiss, owner of ARKU  
 Coordination: Alexandra Schuldt, Head of Marketing  
 Composition: Rommel & Company  
 Print: OneTouchPoint

## Right in the Bullseye

The ARKU employees decided to spend this year’s company outing with an activity most of them had

technique and explained the safety regulations. Everyone picked up the technique very fast, so it was not



The ARKU employees with their partners had a great time during the axe throwing event.

probably never done before: axe throwing. What may sound unusual for a team building event at first, turned out to be the perfect match. “The event at Class Axe in Cincinnati was perfect for teams like ours who are not afraid of getting their hands dirty”, said Nicholas Miller, President of ARKU Inc. First, an instructor showed the colleagues the ideal axe throwing

long until the first axes flew through the air. A series of mini games promoted the team spirit and provided a fun experience. “Great teamwork is essential for running a smooth business”, said Miller. “Creating trust in each other to reinforce team mentality and solidarity is just as essential in our own teams as it is in daily business with our customers.”

## Personality Passionate about metal

Sales are a bit like team sports: they require persistent, well-versed players who work towards a common

After finishing his studies in 2011, the 31 year old professional gained experience in both outside and



goal. Our sales engineer Eric Miller is exactly this kind of team player. He combines the industry knowledge and team spirit that are necessary for this demanding task. Born and raised in Ohio, Eric started working as a Sales Engineer June 2018. He holds an Associate’s degree in Industrial Design from Cincinnati State Technical and Community College.

inside sales at local steel manufacturing companies. Above all, he has always worked closely with customers to find their optimum solutions. Particularly providing excellent consulting and production planning. We are very excited to have Eric on our team – and look forward to achieving many successful sales together!