Staying on the ball
ARKU leveling and deburring technology at Weland AB

Smålandstênar, Sweden – Continuously optimizing production processes is a constant focus at Weland AB, located in southern Sweden. This also explains why the company began working with leveling and deburring systems from ARKU a year ago.

The small town of Smålandstênar in the south of the country is home to the headquarters of one of the largest players in Sweden’s metal processing industry. Weland AB started as a manufacturer of stairs and railings. Since then, Weland has developed into a supplier for more than 700 customers. Furthermore, the company also serves as a contract manufacturer and processes sheet-metal for the automotive and construction industries, for example.

Customers trust in the company’s expertise with cutting, welding, bending and finishing. Chief Operations Officer (COO) Björn Henriksson has been observing a key change as time progresses: “Our customers rely on lean production in order to achieve short lead times. Major customers, in particular, often request component groups that they assemble on site to create the final product.” Yet at the same time, the market also demands flat and deburred parts with minimum internal stresses, as only these parts are ideal for further processing.

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Increasing added value for customers
Weland faced the challenge of expanding its leveling and deburring capacities. “A few years ago, we only ran a single leveler in Smålandstênar.

Strengthening the powers of freedom
Today, almost all of our customers work in an international environment. As a typical machinery manufacturer, we export about 70% of our machines. We also operate subsidiaries in the USA and China. Our moderately sized company employs people from many different cultural backgrounds, who all share the common goal of inspiring our customers. This has become a standard achievement which we barely notice anymore. In fact, we perceive it as immensely personally enriching.

In regards to the Brexit and increasing protectionism, I feel that it is very important that “the industry” makes its powerful voice heard and speaks out in favor of free trade. At the European elections in May, everyone of us in Europe has the opportunity to strengthen the power for freedom. As a European you can make your contribution to developing the European identity. There is more than enough to do.

Albert Reiss, President & CEO

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We suffered from bottlenecks and risked delays with orders for our major customers, reports the COO. Furthermore, the company was also using a deburring machine which – compared to its purchase price – failed to provide adequate results. Weland had to improve its added value for customers while also maintaining cost-effective production. But where to begin?

While attending a trade show in Germany, Henriksson and his colleagues discovered ARKU – and were positively surprised: “ARKU presented machines that handled both leveling and deburring. That looked like the perfect combination for us.” ARKU offered to carry out tests with Weland parts in Baden-Baden. Said and done: “We were impressed with the leveled parts, rounded edges and minimal internal stress”, explains Henriksson. At that time, ARKU utilized the FlatMaster® precision leveler and the EdgeBreaker® deburring machine.

The good results inspired the COO and his team to collaborate with ARKU. The company ordered a FlatMaster® and an EdgeBreaker®. In order to guarantee that the parts meet the necessary flatness requirements, Weland now also employs the FlatJack® flatness control system from ARKU. Henriksson is extremely satisfied with the latest acquisitions: “I think that we now have an excellent foundation for increasing production, ARKU offers reliable quality at a fair price.”

Weland utilizes the EdgeBreaker® 4400 deburring machine to deburr and round components up to 100 mm thick on one or both sides.

Effective control over raw power

FlatMaster® precision levelers - efficient power consumption

Precision levelers effectively flatten uneven punched, laser-cut and flame-cut parts while also largely eliminating the internal stresses. This increases the reliability of the subsequent processing steps and also makes them more efficient. Rounding or welding sheet metal assemblies is one example. The purchase of a leveler also includes an analysis examining the amount of time and money saved. Customers increasingly ask about the electricity consumption. ARKU ensures that users enjoy the greatest transparency and energy efficiency benefits when they choose a FlatMaster®. With the FlatMaster® series, ARKU combines a mixture of electric drives for the leveling rollers with servo-hydraulic machine controls. Four hydraulic cylinders handle the leveling roller positioning and leveling gap control. This also protects the leveler against potential overload.

The combination of electrical and hydraulic systems significantly reduces energy consumption in comparison to the once conventional, fully-hydraulic machines that utilized hydraulically driven leveling rollers. The power-controlled hydraulics also provide the FlatMaster® with the necessary performance reserves precisely when they are needed. This briefly increases the consumption – an intentional design aspect to achieve faster results during the first leveling run. Therefore, this setup actually saves electricity even if the machine briefly draws five kilowatts more at peak capacity.

“We are keeping a close eye on the trends in the machine building industry”, says Ewald Hund, Technical Director at ARKU. “Currently, there is no effective alternative to hydraulics which is capable of providing the same speed, power and reliability. Over the years, we have optimized the hydraulics in the leveler to such an extent that we have now achieved a standard which is almost impossible to improve further.” Therefore, the electricity costs play an almost negligible role given the hourly rates of the FlatMaster®.

By way of comparison: a modern leveler now consumes only a fraction of the energy of a laser or flame-cutting system. While writing the article, the author had the idea of also analyzing the energy savings from leveling for the sheet-metal process chain. Perhaps an idea for a future story.

Visit our experts at the ARKU InfoDays

From the 20th to 24th of May 2019, we open our doors once again for five days. Whether you are already a user or simply interested, we cordially invite you to the Leveling + Deburring InfoDays at ARKU in Baden-Baden! Register now, The QR code links you directly with the registration form.
Do you need leveled and/or deburred parts/sheets? Then our Leveling and Deburring Center in Baden-Baden is the right address for you. Send us your parts/sheets for leveling and deburring contract work. We will process your workpieces for you: quickly, reliably, with high-quality and transparent costs.

Leveling and deburring at ARKU - Worth the visit!

The new ARKU blog is online!

Feedings lines

Handling made easy

Craemer Group expands its machinery lineup with two ARKU press feeding lines

Herzebrock-Clarholz, Germany – Many car seat shells, large waste containers and production tools have one thing in common: they are manufactured by the Craemer Group. The internationally active company combines metal forming, plastic processing and tool making under one roof.

The vehicle components are primarily made of sheet metal. This is where ARKU comes into play. “Our customers demand light components. That is why we increasingly work with high-strength sheet metal”, explains Siegbert Geldner, Managing Director of the Craemer Group. “When using high-strength steels, we have to achieve optimum leveling results prior to stamping. As such, we need feeding lines that can provide these results with high availability.”

The feeding lines from ARKU meet precisely these needs. In 2001, the Craemer Group purchased the first coil line with a precision leveler from Baden-Baden. Others followed over the years, such as in 2017 and 2018. In response to the positive business development, the Craemer Group invested in two additional feeding lines from ARKU. “Both parties know exactly how to successfully complete projects like these”, emphasizes Reiner Veit, Metal Production Manager at the Craemer Group.

The installations were successful as one would expect. The latest purchases can be outfitted with coils up to 25 tons. Thanks to ARKU’s leveling and feeding technology, the coiled steel is fed reliably to the subsequent process. With the new machines, the Craemer Group aims to leverage its technological advantage.

www.craemer.com
Göppingen, Germany – After 11 years with the FlatMaster®, we asked Josef Eisele, the Managing Director and owner of Edelstahl-Mechanik GmbH, for a retrospective update and visited him in Göppingen. The company’s order situation is good. So good, in fact, that his primary concern when we visited was the lack of qualified employees. “Today, our customers demand welded constructions with a precision down to hundredths of a millimeter”, explains Eisele and is quickly in his element. “Not many people can do this and we need excellent, qualified employees.” That explains why Edelstahl-Mechanik offers an attractive training program and invests extensively in the company. As was the case 11 years ago, when Josef Eisele decided to improve the sheet metal quality by purchasing a FlatMaster® precision leveler.

In the beginning, it was difficult to choose which panels to level and which not to. Furthermore, how to invoice the leveling process. These days, the answer is clear-cut: every panel is leveled. The welders immediately complain if they have to work with un-leveled panels.

Without the ARKU leveler, they would have been unable to take on or cost-effectively complete many orders. Looking back, the decision to go with the FlatMaster® has proven to be worth it. The trend toward increasingly precise assemblies continues and is even on the rise in sectors which one never would have expected, such as the construction industry. Fortunately, Edelstahl-Mechanik is perfectly prepared to face the challenge thanks to its history of precision and the FlatMaster®.

www.edelstahl-mechanik.de

In a study conducted by the leading German business magazine „Wirtschaftswoche“, ARKU was listed among the 50 most innovative mid-sized companies. More precisely, in 15th place. As such, ARKU stands out as the best-ranked machinery manufacturer. The study analyzed 3500 mid-sized companies. The criteria for the evaluation included the company development, innovations achieved, investment in research and development as well as surveys among customers and competitors. This year, ARKU is planning further investments in its locations. Not to mention, to enhance its appeal as an employer.

“At ARKU, we know that we are and remain a top address thanks to our highly motivated and highly qualified employees. We are competing for the best employees. Our ability to offer an innovative environment helps us with this”, states Albert Reiss, President and CEO at ARKU. The company currently has eleven trainees and seven students from cooperative state universities. Ranging from mechanical engineering, electrical engineering to information science.

This year, ARKU’s trainees took the initiative once again and organized a social project. Guided by Sascha Hutzler, they invited the management to lend a helping hand to a social service in their region. Specifically, they assisted the children’s home in Baden-Baden. A large green area was in poor condition and the kids were no longer able to use it. After the help from ARKU, things look a little different: the paths were restored, bushes and trees trimmed and the area was transformed into a proper playground for the children. The results are something all of the helpers can be proud of. Along with the good cause, the activity also encouraged the team spirit. The training manager, Sascha Hutzler, also worked hard and is proud of the results: “Social commitment is an important factor at ARKU and, above all, as part of our vocational training. It was also a lot of fun.”