VALK MAILING
a publication of Valk Welding
23th year - 2023-2

"Irish pioneer in sheet metal shifts course with successful welding robot"

McAree Engineering

valk welding

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Dear reader,

It has been 45 years since I completed my training as a welding robot programmer in Haiger, Germany. Since then, a lot has changed in the world of welding technology:

- While the number of Chinese cobot and robot manufacturers is currently experiencing explosive growth, the large amount of robot manufacturers from the 80s has dwindled to just a dozen major players.
- The number of welding wire producers/manufacturers in Europe has experienced a sharp reduction of about 70% since 1990.
- The number of producers/manufacturers of welding power sources has also decreased significantly since 1995, with a reduction of about 65%.

Despite the reduction in the number of manufacturers, the sales volume of these products has increased dramatically. This increase was partly due to the further merging of the European Union, the virtual elimination of borders and the introduction of the Euro, which has led to increased productivity in Europe.

In addition to economic changes, we have also seen technological developments in both mechanical and software domains. To stay ahead in this rapidly changing world of welding technology, we actively invest in new talent and continue to innovate together. As a result, we are seeing a sharp increase in the use of automated welding processes.

Valk Welding’s aim is to fully cover these processes and thus supply our (future) customers with products where the Total Cost of Ownership (TCO) remains as low as possible. This is reflected in virtually fault-free robot systems, high quality welding wires and effective programming methods using innovative software.

During the Schweissen und Schneiden trade fair in Essen, which took place from 11 to 15 September 2023, Valk Welding once again showed itself as one of the most innovative suppliers in this segment.

The combination of our know-how in welding robot systems equipped with laser cameras, advanced programming methods, high quality welding wires and a Europe-wide distributed service network is the reason for our growth over the past decade, both within Europe and beyond.

We would like to thank all guests from all over the world for visiting us. Your enquiries will be processed quickly and we look forward to a strong partnership.

Remco H. Valk (CEO Valk Welding Group)

ARC-EYE

Irish pioneer in sheet metal shifts course with successful welding robot

With an annual turnover of 2 billion euros, the sector for stone crushers and screening installations is the largest in Northern Ireland. This dynamic industry continues to grow globally but is facing a pressing shortage of welders. As a result, many Irish suppliers are transitioning to robotic welding, including McAree Engineering. The company invested in a high-end Valk Welding robot system, equipped with all options. “Robotic welding is the way forward, and it is never too late to embrace new technology”, emphasises Peter Richardson, Marketing and Sales Manager at McAree Engineering.

With 180 employees and three manufacturing sites on the southern border of Ireland, McAree is a leading supplier in the region. The company specialises in the manufacture of large products, including sieve boxes, hoppers, safety cabins, and pre-screening machines for the screening industry. This requires significant welding time, with some products taking up to 15 hours. Richardson explains how the new robot installation helps in this regard: “The main benefits are a 25% increase in efficiency and improved weld quality. Our welders can focus on tack welding while the robot performs the longer welds. Moreover, it offers our employees the opportunity to learn how to work with new technology. These benefits are appealing and will contribute to our growth.”

Full range of options

“Although we had no previous experience, we opted for an advanced automation solution right away, aligning with our high-end, large-format sheet metal processing machines”, continues the Marketing and Sales Manager. “The new welding robot system must be configured to offer a wider range of possibilities for optimal flexibility.” Therefore, the system installed by Valk Welding, includes a hanging robot that moves along a 12-meter track and serves two different workstations. One station features a 2-ton positioner and a movable counter-bearing, while the other is equipped with an L-positioner. With this welding robot installation, McAree Engineering also benefits from a built-in Wire Exchange System (WES) that automatically switches between two different welding wires, an Arc-Eye CSS seam tracking system, and fume extraction through the torch. Richardson: “With all these options, we have maximum flexibility to weld a wide range of products according to customer requirements.”

More than a supplier

“We were deeply impressed by the way Valk Welding guided us through the start-up process. They offer a complete package that goes beyond just the robot itself. We also invested time in building a team to make sure the robot keeps running. Overall, we are convinced that robotic welding is the way forward, and we expect that within five years, 50% of our production will involve robotic welding”, predicts Peter Richardson.

www.mcaree-eng.com

“Robotic welding offers consistency, continuity, consistent high quality, and time savings”

- Peter Richardson, Marketing and Sales Manager at McAree Engineering.

Welding robot assists in assembling motorised wheelbarrows and carts

Isolit Bravo is a purely Czech company with a history dating back to the 1920s. In Jablonné nad Orlicí, the Isolit bakelite moulding plant was founded, upon which Isolit-Bravo s.r.o. was established in the early 1990s. One of the projects that forms the backbone of Isolit Bravo's production program is the production of motorised wheelbarrows and carts under the name 'Mobarrow'. This project is the 'child' of owner and director Kvido Štěpánek, and it was created approximately 14 years ago with the intention of being a suitable addition to the diverse range of Isolit Bravo products.

"After the successful start of the project, we managed to develop further variations of these electrified tools for the garden, forest, orchard, and other environments that require transport of various materials, especially in rough and challenging terrain. We currently supply more than 90 models of these carts and wheelbarrows", says Štěpánek.

Increase in production

Thanks to craftsmanship and an advanced concept based on the use of special DC motors and a specific planetary gearbox, Isolit Bravo has succeeded in expanding to markets outside the Czech Republic, virtually all over Europe. However, this has also led to increased demands on production capacity. At the moment, the number of Mobarrow branded products delivered is approaching 50,000 units of all models offered. It was therefore necessary to analyse the individual production steps and see where production could be streamlined and simplified.

Welding

Since the frames of all wheelbarrows and carts are made of steel for logical reasons, an essential part of production involves arc welding, which produces frames in all the necessary shapes and dimensions. Automation, or rather robotisation of this process, was thus one of the first steps towards more efficient production.

Many models in smaller series

"Despite the high delivery numbers, we produce a relatively wide portfolio of wheelbarrow and cart models. Therefore, we need to weld individual parts in smaller series so that we can meet individual orders as they come in", says Mr Mato, chief engineer

of Isolit Bravo's machinery, adding: "Because of this, we were looking for a partner who had the know-how for our type of production."

Tests and trials

Since robotic welding technology was new to Isolit Bravo, it was necessary to test the feasibility of the entire project. This helps the customer decide which path to take in this field. Tests were conducted at the Valk Welding technical centre in Paskov to weld the entire frames of the motorised wheelbarrows from the Mobarrow series. The use of Quick Touch technology proved to be an essential tool in the tests, which allows the elimination of minor inaccuracies in the production preparation and ensures a perfect result. During the tests, the welding design of the product was decided upon. This resulted in less deformation of the product while maintaining its strength.

Final configuration

After several discussions, a robot system with a FRAME-H concept was chosen as the optimal configuration for the intended production batches. The system includes two workstations, each equipped with a 500 kg positioner.

Initiating robot production

The chosen machine concept allows for full practical preparation at the supplier's plant. Therefore, the installation at the customer's final location was a matter of one day. And because the knowledge gained from the aforementioned tests was used, the start-up of the robotic welding of the first Mobarrow frames proceeded very quickly.

Efficient production on a modern machine

Director Štěpánek summarises it briefly: "The deployment of the welding robot has elevated our metal production to a higher level. Valk Welding has proven to be a reliable partner in this process of robotising our welding work. We are now able to efficiently manufacture and further expand the portfolio of one of our most successful in-house products."

"Accelerating production has also freed us up for other projects. For example, we have developed and shipped several special Trailblazer ground drones to Ukraine, where they are helping the Ukrainian military rescue wounded soldiers near Bakhmut", says Štěpánek.

www.isolitbravo.cz

Successful collaboration in single-piece production

STAS, a manufacturer of self-discharging trucks and tipper trucks, has been collaborating with Valk Welding for 18 years and has undergone a significant evolution in automation and IT during that time. The company has largely integrated its sales, engineering, and production with a strong focus on software development. STAS is therefore a pioneer in the field of Industry 4.0, and has received a 'Factory of the Future' award in Belgium for both of its production sites. "Within the Factory of the Future, a 'human-centred organisation' is paramount, and this is largely reflected in the way we have automated production, especially the welding department", says Patrick Hugelier, Senior Automation Engineer.

STAS is an early adopter in the field of welding automation. This decision was prompted by a shortage of welders in the late '90s. In 2007, Valk Welding delivered the first welding robots to STAS for its facility in Doornik, where self-discharging trucks are produced. This successful collaboration has developed into a long-term partnership, resulting last year in the delivery of a large welding robot installation for the main plant in Waregem. Here, aluminium tipper trucks are produced.

Aluminium tippers

With its aluminium self-dischargers and tippers, STAS focuses on the transportation of bulk goods. Transporters using self-dischargers and tippers place great importance on stability, reliability, and low vehicle weight. Welding aluminium panels requires special attention because of specific challenges, such as the low melting point and the high risk of contamination of the weld pool. In previous installations in Doornik, STAS used many short robot programs per production order. This lowers the entry threshold for the welders that will be operating the installation. The combination of STAS's control software and Valk Welding's robot expertise has proven that a stable process can be achieved", continues Patrick Hugelier.

Six welding robots

The project recently realised by Valk Welding at STAS consists of two production lines with a total of six welding robots. These installations are used for the production of aluminium floor panels and sidewalls for tippers. With this project, STAS can significantly reduce production lead times. Hugelier adds: "High user-friendliness of the installations has always been the starting point. The machine must adapt to the people, not the other way around. This has mainly been solved through software. Within this setup, our welders are now process and quality controllers, providing higher added value to the entire organisation."

Development of custom software tools

"Internally, we have long established an automation department, and it works closely with Valk Welding's software engineers", says Hugelier. "Thanks to the combination of our own machine control and Valk Welding's ROSE, we can control, monitor, and adjust production within the new installation. We have also created our own link to our ERP package. It is safe to say that an important part of the success of 'human-friendly' automation lies with the software."

SQUADRON

From this background, the SQUADRON division was born. Through SQUADRON, STAS offers its knowledge and experience to assist other SME manufacturing companies with end-to-end digital transitioning. Besides welding automation, SQUADRON also takes care of linking IT-related matters, such as ERP integration and MS Power Apps, to operational matters such as project management, the development of user-friendly software, and the visualisation of production data.

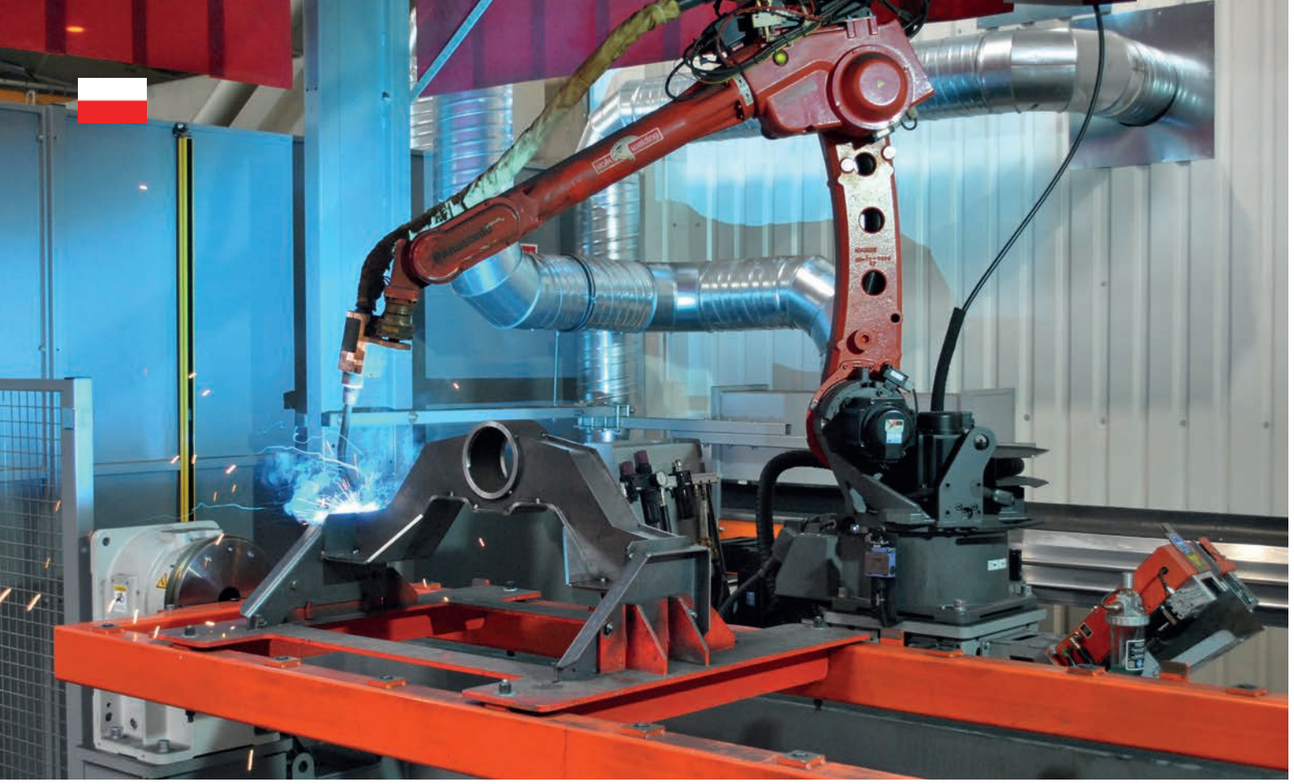
Single-piece production

SQUADRON has developed an ERP package with a vehicle configurator for STAS, allowing dealers to configure all available variants there. When the configuration is converted into an order, this data automatically drives and generates material procurement, production planning, and welding programs. In this way, STAS can achieve single-piece production, similar to the automotive industry.

Challenge

"The next step is further integration to reduce even more ancillary activities and save costs. The goal is to add value only to the end product and to eliminate all waste. We are also still at the beginning when it comes to processing data. If we can add AI intelligence to the data, we should be able to initiate preventive actions online to avoid downtime. Realising this will be an exciting challenge in the future", says Hugelier.

www.stas.be, www.squadron.be



Wemeco Poland reaches next-level quality and triples welding output

Based in Southern Poland, Wemeco Poland sp. z o.o. is a preferred supplier for OEMs in various industries, including agriculture, renewable energy, automotive, infrastructure, gymnastics, and fire protection. The company has experienced strong growth in recent years, thanks in part to the use of welding robots. “With the robotic welding systems provided by Valk Welding, we can offer our customers finished products with high product quality”, says Sjoerd Silderhuis, Managing Director.

As part of the Dutch Wemeco Group, Wemeco Poland sp. z o.o. supplies light construction work, semi-finished products, (sub) assemblies and finished products of a repetitive nature. “The focus here is on long-term customer relationships, for which we are a regular production partner”, says Silderhuis. “This is only successful when you have your organisation under control in all areas. That means thinking in terms of manufacturability, short lines of communication, high delivery reliability and, above all, a high and consistent quality of our products.”

Welding as a core business

The supplier presents itself to its customers as a one-stop-shop and, therefore, has all disciplines in-house, from machining and sheet metal processing to welding, coating, and assembly. Managing Director Silderhuis: “Welding of aluminium, stainless steel and steel is the core business. By using welding robots, we are able to weld a large volume, keep lead times short and achieve high, consistent quality. This also helps to address the shortage of well-qualified welders.”

Transitioning to robotic welding

Seventeen years ago, Wemeco Poland sp. z o.o. started with a robot which they had converted into a welding robot. “The results eventually prompted further investment in welding robot cells”, continues Silderhuis. “In mid-2015, we reached a production limit where the number of hand welders could not keep up with the volume. A welding robot rented from Valk Welding provided the solution. Thanks in part to the good support, we took the step towards robotic welding”. The company currently owns four Valk Welding cells for MIG/MAG welding: one FRAME-H system and three TRACK-FRAME-E systems, including one with a gallow. Additionally, one of the robots is equipped with the cold Super Active Wire process and TIG welding capabilities.

A higher level

The welding process is now fully ISO 3834-2 certified, and the product quality has been elevated to a higher level, as emphasised by Welding Engineer Konrad Kordas. “The organisation surrounding robotic welding is also geared to this. We invest a lot of energy into the training of our employees at the Wemeco Academy, where robot operators and programmers are trained by Valk Welding CZ in Paskov, Czech Republic.”

Complex welding assembly

Kordas illustrates the tasks that the Valk Welding robots perform within the company: “Among other things, we now weld boiler systems with about 10 meters of weld on the welding robots. The combination of steel and stainless steel and the high requirements for achieving an absolutely leak-free end product, cannot be replicated manually. We also weld many other complex weld assemblies, ranging from 30 to 40 metres of weld, such as chassis modules for refrigerated trailers, complex frames for agricultural machinery, and heavy-duty traffic hatches.”

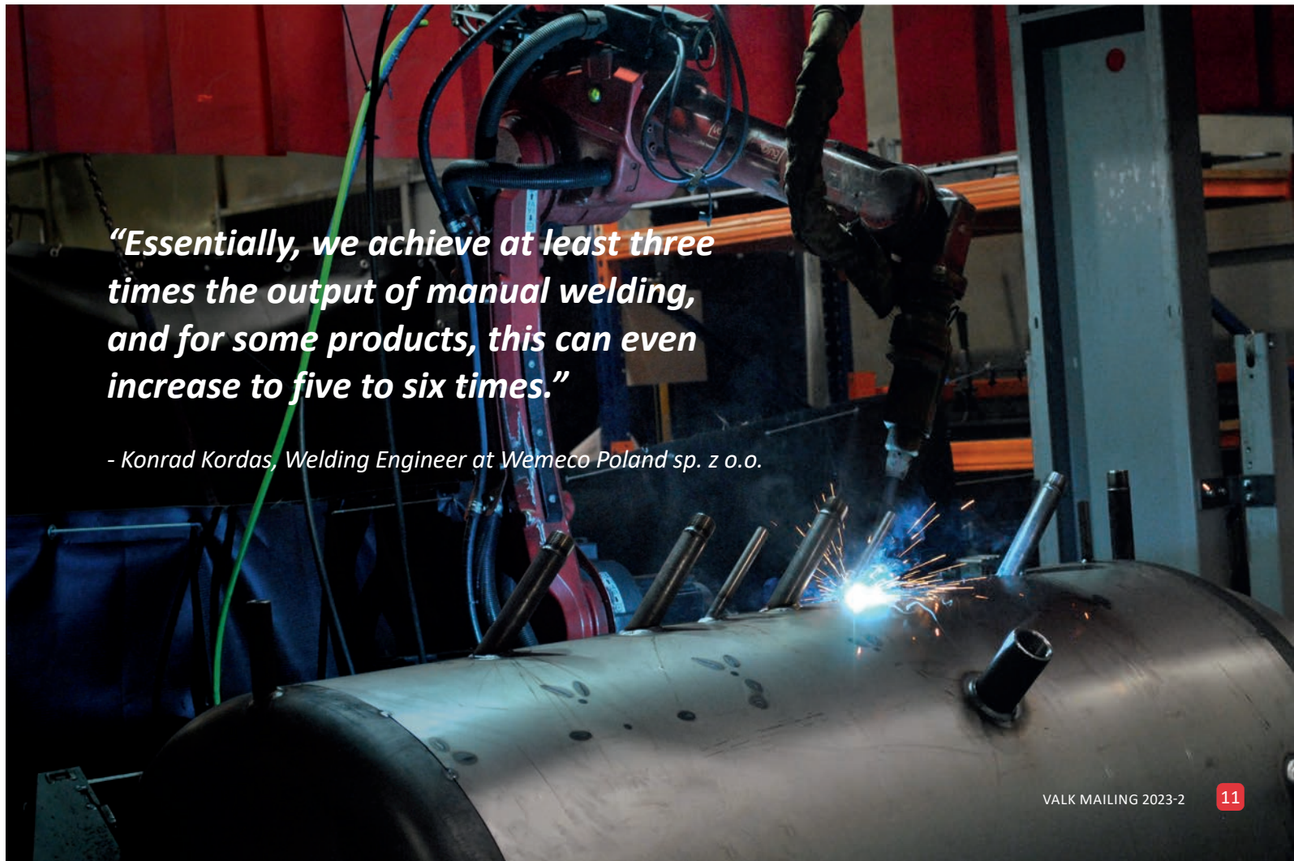
The latest technology

Wemeco Poland sp. z o.o. works with the latest technology. For example, the Valk Welding installations offer automatic wire change for the transition from steel to stainless steel. Kordas adds: “We also maintain continuous monitoring of the welding process to further reduce welding time where possible. The welding robots operate 80-120 hours per week in 2 or 3 shifts.”

Future expansions

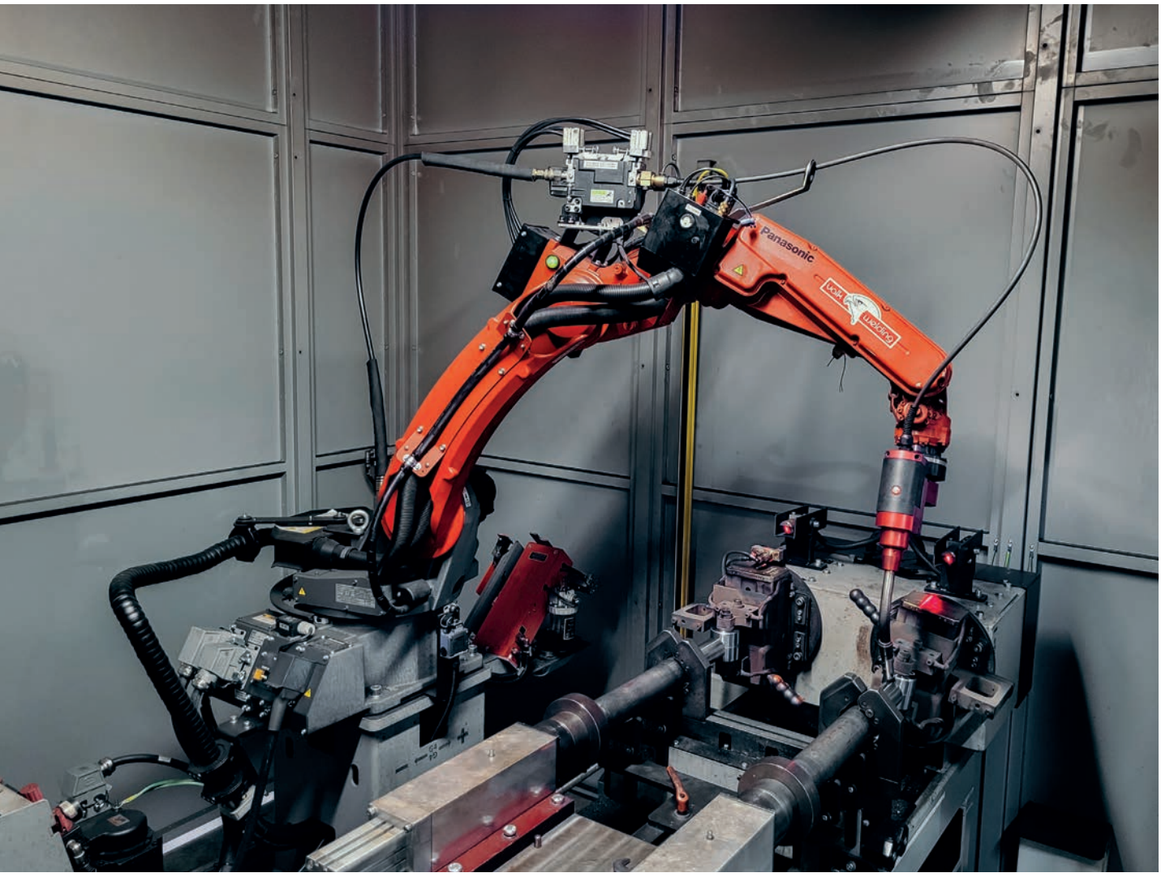
“In order to be able to weld longer and more complex products with the robot, as well as to shorten the lead time of various existing products, we are working with Valk Welding on a concept where we can start welding the products with two welding robots at the same time”, reveals the Managing Director.

www.wemeco.pl



Presenting our new corporate film

Over the past 10 years, we have experienced a strong evolution, and we would like to share this with you. That is why Valk Welding presents its long-awaited new corporate film, of which we are all very proud. A lot has changed within the company: we have innovated and invested, expanded into new markets, and developed techniques with more and more added value. Scan the QR code to take a look at our story and experience how our team works every day to shape the future of the welding industry.



Welding with ‘Swiss Army Knife’

Valk Welding recently delivered a robotic welding cell to Chapel, a company in Northern France. Users consider this installation to be the ‘Swiss Army Knife’ of welding equipment due to its flexibility and versatility. In fact, the cell can be adjusted for the production of a wide variety of cylinder rods and sleeves.

Since 1973, Chapel has been the leading French manufacturer offering the broadest range of hydraulic cylinders and autonomous pumps on the market. The company employs 320 people and has an annual turnover of 60 million euros. With eight production units, six in France and two in Germany, Chapel delivers 500,000 cylinders, 90,000 telescopic cylinders, and 80,000 hand pumps each year.

Across five continents, these components power machinery and installations in agriculture, horticulture, road construction, energy, construction, public works construction, as well as material handling and airports.

Hydraulic cylinders

In Avesnelles, Northern France, Chapel’s factory specialises in single-acting and double-acting cylinders. With the machinery and fifty employees working three shifts, the company produces 150,000 hydraulic cylinders annually. A cylinder consists of a tube, a piston connected to a rod, and associated accessories such as inlet spigots and mechanical connecting elements. The cylinders vary in size, with outer diameters ranging from 40 mm to 150 mm and lengths from a few centimetres to several metres. At 250 bar, they move several hundreds of kilos to tens of tonnes and move at speeds of up to 1 m/s thanks to specific components in PTFE.

Efficient production and assembly

“Our production runs range from a dozen cylinders to several hundred pieces”, explains Benoit Delcambre, Site Manager. “To reduce lead times and work-in-progress, the cylinder tubes and rods are produced simultaneously as a set and then joined together during assembly. They receive their mechanical parts, some of which are welded, such as the hooks and ball joints required for operation,” he continues. Thanks to the new robot installation, production times have been reduced while simplifying the workflow on the shop floor. Designed by Valk Welding, this installation operates alternately on two workstations. It includes a six-axis TM-1400WG robot mounted on a linear track with a travel distance of 5.3 metres. This additional axis ensures higher positioning stability and faster adjustment of product lengths, with stroke lengths up to 2 metres.

Advanced technology for various cylinders

After an extensive study of the clamping tools, each station is equipped with two manipulators and two mobile counter-bearings to position and weld two cylinder sleeves or rods simultaneously. The interchangeable parts make it easy to weld different product lengths and diameters. “These technological choices enable versatile welding, even for long and complex cylinders, with a robot that can also adapt to thin sections like pipes (1 mm). Currently, more than a hundred programs specifically tailored to customer drawings are stored in memory. Each cylinder reference has its own program to ensure repeatability of production runs,” says Delcambre.

Improved productivity and quality

The new cell, which often combines welding with product rotation, offers shorter working times while maintaining weld consistency and quality. It offers the ability to switch between small, medium, and large production runs with rapid tool change times. Valk Welding’s robotic cell combines flexibility and versatility to respond optimally to new technical challenges. Currently, operators trained by Valk Welding have been programming two to three new products every week, and have been for the past eighteen months.

Progress and results

Benoit Delcambre emphasises: “As a real welder would, but faster and with greater agility, consistency, quality, and repeatability on cylindrical products, the installation provided by Valk Welding adapts quickly to the different production runs and generates productivity gain during assembly. As expected, we are reducing work-in-progress and gaining in production monitoring with the ability to manage hundreds of individual programs.”

www.chapel-hydraulique.com

Valk Welding helps Australian trailer builder MaxiTRANS with their growth ambition

The welding automation solutions offered by Valk Welding have not gone unnoticed, even in Australia. Recently, Valk Welding delivered the first of four welding robot installations to Australian trailer builder MaxiTRANS. With the deployment of welding robots, among others, MaxiTRANS aims to double its market share on the Australian continent. “Valk can be one of the few to help us successfully automate the welding production of complex parts in small numbers,” General Manager Advanced Manufacturing Brad Givvens and System Development Manager Brendan Broughton tell us.

MaxiTRANS is among the largest manufacturers of trailer combinations in Australia. The acquisition by Australian Trailer Solutions Group (ATSG), a private equity firm in which Germany’s Schmitz Cargobull is also a shareholder, offers opportunities to increase scale and expand market share. This will require investments in production technology, with a particular focus on welding production because there too, a shortage of skilled workers is a growth driver.

In contact with Valk Welding

“Because most trailers are custom built, the first step was to find the right partner. The opportunities to find a robot integrator who can successfully realise welding robotisation in a high-mix, low-volume production are virtually impossible to find in Australia,” explains Brendan Broughton. “Through the many videos Valk Welding publishes of its projects online, we became convinced that Valk Welding could provide good solutions for complex low-volume workpieces. In previous attempts at using welding robotisation, we got stuck with a lack of expertise in welding and programming knowledge. Instead, we need a partner who can help us further in that rather than just selling a system.”

Starting small

“Our first goal is to increase trailer production from eight to 10 per day. To this end, we submitted products we want to weld with a robot to Remco H. Valk. His advice was to start small by welding only sub-assemblies and grow from there. That way of thinking appeals to us. For us, it is not just about the technology and support, but also about the attitude and relationship,” Brad Givvens stresses.

Training

“With the deployment of the Valk Welding welding robot systems, we are also making the switch to offline programming using 3D CAD files. In the past, we did that online, which was too time intensive. Valk Welding is also first in automatic programming using their ARP solutions. In this, we will soon be working according to the latest developments. A number of our employees will be trained for two weeks in the Valk Welding Training Centre in the Netherlands. We intend to install a separate robot for internal training, which we can also use as back-up. When necessary Valk Welding will also help us to build special robot torches, for the time being we use their standard equipment, which is also calibrated for perfect results when using off-line programming”.

Support

For local support, Valk Welding can fall back on Orion Automation, the Panasonic dealer for Australia, which Valk has been working with for some time. Remco H. Valk: “Despite the fact that we do not expect to have to travel to Australia for an intervention, support from Orion was a prerequisite for us to start supplying projects to the Australian market and have in-the-field support.”

What is next?

“Next systems planned are for welding aluminium parts, shafts, components for tippers and a robot installation that can be used for both aluminium and steel parts,” Brad Givvens explains. “We are also investing in state-of-the art sheet metal working machines to ensure well-fitting products for the welding robots. Overall, the investments should yield an increase in quality, a reduction in production time and savings in production costs,” is Brad Givvens’ expectation.

www.maxitrans.com

DTPS

Simplified and automatic robot programming with ArcNC for Panasonic

ArcNC, a Belgian spin-off from Oqton, has forged a strong development partnership with Valk Welding, automating the process of offline programming for welding robots. This collaboration has introduced 'ArcNC for Panasonic', a user-friendly software tool that takes the programming ease of a cobot and combines it with the longevity, accuracy, and repeatability of Panasonic robots. James de Villiers, robot programming specialist at Valk Welding, puts it simply: "This means that everyone can now program a welding robot, even without previous experience."

Traditionally, robot programming has followed two primary paths: online programming using a teach pendant and offline programming using software like DTPS. Valk Welding's involvement with ArcNC has been instrumental in advancing the latter approach. "We are in contact with the developers almost every day," de Villiers notes, "and together we do a lot of testing and development for the software, specifically for Panasonic." The result is an advanced programming tool that automatically analyses CAD-files, identifies welds, and recommends welding positions and sequences, integrated with our reliable hardware.

Shortage of welders

One of the core challenges that this collaboration aims to address is the shortage of skilled programmers for robotic welding. Our solution is easy to use and requires little programming knowledge, contrary to traditional software. This is because it automates a lot of time-consuming tasks, including the selection of welds, weld sequences to avoid product deformation, and robot positions to prevent collisions. In this way, when using ArcNC, operators can program up to a couple thousand points in a single day, a feat that would take an online programmer up to nine times as long."

Cloud-based and accessible

ArcNC for Panasonic is a simple, cloud-based online software. "The whole platform is available through a webpage", de Villiers explains. "That is amazing, because companies typically install software locally and have to maintain updates on their computer. Here, every update is placed in the cloud so that all customers are up to date with the latest software version at the same time."

Calibration and support

Valk Welding excels in offline programming, which ensures a seamless integration with our hardware. De Villiers continues: "Many other companies struggle to connect the virtual robot to the real world. They program the virtual robot on the computer, put it on the robot, and in a lot of cases it does not match up perfectly." To avoid this, our Panasonic robots and welding equipment are well calibrated. And as the seller of the software, we take responsibility for the entire process: "We believe strongly in helping our customers. We do not just leave them, as we have consistently shown in the market."

"Here, you don't see any of the complicated commands. We want every welder to be able to program a robot."

- James de Villiers, offline programming specialist at Valk Welding.

ARP Powered by ArcNC for Panasonic

Dutch family business embraces high-tech advances

In a distant past, Duijnisveld Kasconstructies, in cooperation with TNO and Valk Welding, conducted a feasibility study into the use of welding robots. What seemed like visions of the future at the time has become a reality 34 years later, with the fourth generation seeing robotic welding as a way to give the company a growth boost. “The investment is done quickly, but you have to get it up and running”, says Ferry Duijnisveld, who took over the family business with his brother a year ago.

Duijnisveld Kasconstructies, located in Westland, has been developing and manufacturing steel greenhouse structures for the international greenhouse horticultural industry for over 100 years. It was one of the first companies to begin serial production of steel profiles for greenhouse construction. “We have always maintained that lead”, emphasises the young Duijnisveld. “By shifting the focus to more complex parts and because we make everything 100% in-house, we have managed to keep pace with the major changes that international greenhouse construction has undergone. 80% of our revenue is determined by exports.”

Learning programming and creating jigs

The company now utilises a small robot cell provided by Valk Welding in the form of a FRAME-IT concept. This robot operates two 1,500 mm workstations on a manually adjustable indexing table. However, transitioning to robotic welding also means employees need to learn programming and welding jigs need to be created. “We did not have people who could just add that to their tasks”, explains Ferry Duijnisveld, “That is why I, along with a young employee and a colleague from the preparation department, took an online and offline DTPS programming course at Valk Welding.” Duijnisveld had third parties engineer the first jigs: “It costs money, but it is perfect. And you have a 3D-file of the welding jig that you can use to simulate together with the product in DTPS.”

New possibilities

“During the DTPS training, we also learned tactile searching, a great way to integrate product detection into the programming”, Duijnisveld says, “We now use this technique for standard products that may or may not have a welding plate on it. With tactile searching, the robot torch checks whether that plate is present and then determines its position. The advantage is that you don’t have to create separate programs for that, saving a lot of time.”

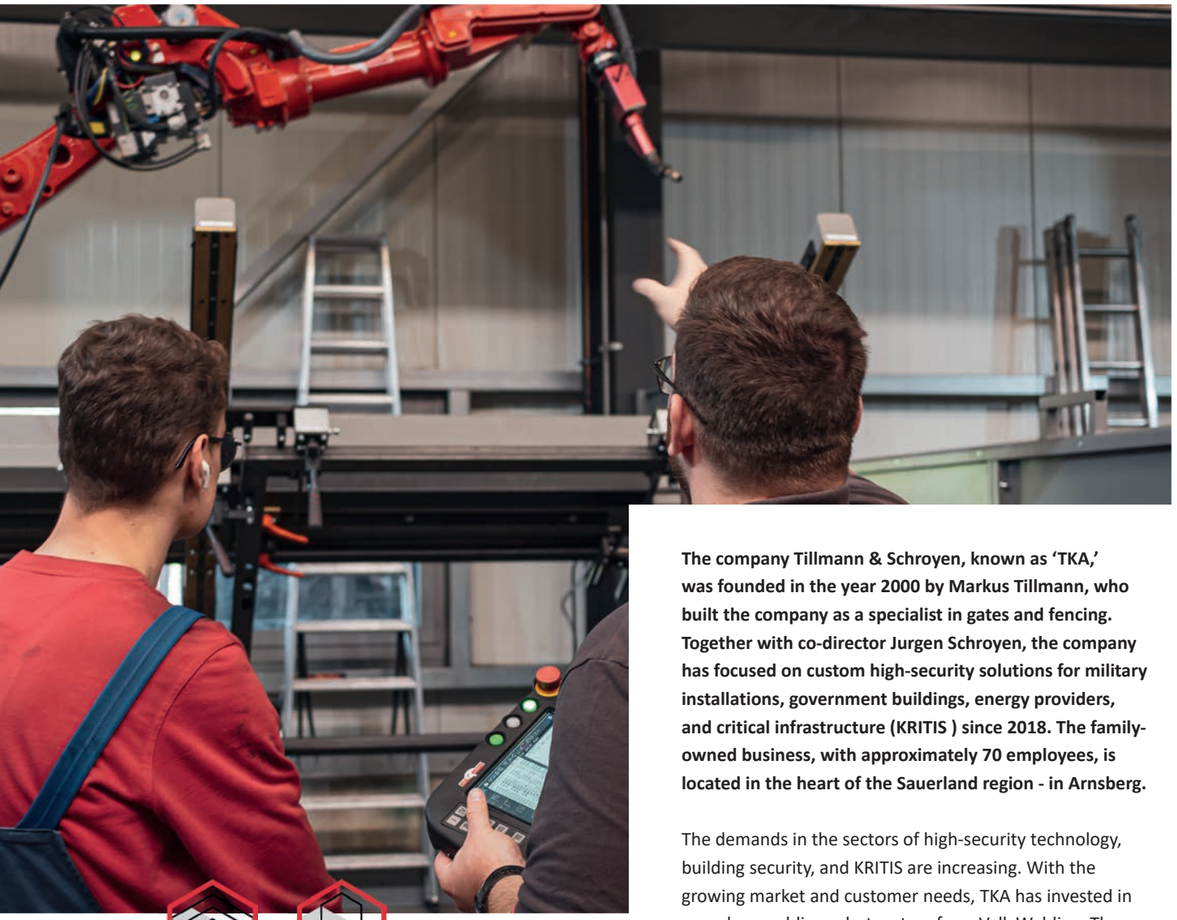
Cost savings

Duijnisveld Kasconstructies employs the new welding robot for consoles and supports up to a maximum of 1,500 mm. So far, the company has limited itself to repetitive products to offset jig costs, but they have already managed to reduce production time for these products. “That is a good start. With this first cell, we want to master robotic welding as well as programming and jig making. I see this as a learning process and a steppingstone towards possible further scaling of robotic welding within our company”, concludes Ferry Duijnisveld.

www.duijnisveld.nl

DTPS

Future-proof in a dynamic market: TKA implements first welding robot



DTPS QPT

The company Tillmann & Schroyen, known as 'TKA,' was founded in the year 2000 by Markus Tillmann, who built the company as a specialist in gates and fencing. Together with co-director Jurgen Schroyen, the company has focused on custom high-security solutions for military installations, government buildings, energy providers, and critical infrastructure (KRITIS) since 2018. The family-owned business, with approximately 70 employees, is located in the heart of the Sauerland region - in Arnsberg.

The demands in the sectors of high-security technology, building security, and KRITIS are increasing. With the growing market and customer needs, TKA has invested in a modern welding robot system from Valk Welding. The robot hangs from a gantry structure and works on different products on two stations. The robot system is designed in a way that the two stations can be converted into one large welding workplace. This allows TKA to produce various posts, floor panels, and safety barriers in different lengths.

A true partnership
"The flexibility and future possibilities we envisioned with this installation were only found at Valk Welding", says Markus Tillmann. "The consistently honest and technically competent support from the Valk Welding team was one of the many strengths in our search for a true partner. The robot system is our first in this field, so we thought carefully about the execution, future proofing and support during the implementation process. The service team is always available and helpful, even with many minor questions. This is how we imagine a true partnership."

Simplicity with single pieces
Built into the two stations with rotating manipulators are templates that TKA uses to produce various products. Adjustments to the product size can be made quickly and easily by hand, and to meet customer requirements for small quantities, a macro has been developed to automatically generate single pieces as well. The operator selects the desired parameters from a preselection in a pull-down menu and the welding program is automatically generated, including torch positions and welding parameters.

Flexible and future-proof
"We can respond to various customer requirements in a flexible way", says Christian Kersch, managing director at TKA. "Having an automatic programming capability that is both very simple and versatile is important for our production. Valk Welding has provided us with excellent support and implemented our wishes in this regard. Thanks to the investment in a Valk system at our production site in Germany, we also feel well prepared for the future, considering the changing market and the current situation in Europe", Kersch concludes.

www.tka-metall.de

Valk Welding continues to build on its future

The Valk Welding organisation started its international growth within Europe in 2004. With the start of the first foreign branch in the Czech Republic outside the Benelux in 2004, the internationalisation inside Europe started.

Now, the Valk Welding Group has its own companies in NL, BE, CZ, FR, DK, PL, DE, SE en UK/IE.

In the Netherlands, the finishing touches are currently being made to the new 'heavy duty' assembly hall, where the increasingly large and voluminous installations can be built and fully tested with the customer's products.

With a crane capacity of 30 tonnes and a floor load of 4,000 kg/m², the hall meets the increasing demand of the heavy industry, such as earthmoving machines, dredgers, offshore and shipping industry.

With this expansion, Valk Welding will soon have an assembly capacity of 5,100 m² in the Netherlands, in addition to the capacity of 2,000 M² in the Czech Republic, where systems are assembled for customers in central Europe.

Since the start of operations in Denmark in 2005, the current premises have become too small for the employees working in Scandinavia. New premises have been purchased to support the growth in Scandinavia through service, demonstrations, and administrative work. The new premises in Middelfart give Valk Welding the opportunity to support these growth ambitions in Scandinavia.

In addition, the activities in Ireland have now been expanded to such an extent, that an own branch has also been opened for the Irish team in Lurgan, Northern Ireland. This way, Valk Welding Ireland can expand their own Technical Centre, Sales- and Service-support organisation. Valk Welding is convinced that having our own branches in the countries where we operate instead of having agents or distributors is the best solution for optimal support of our customers.

This concept has proven successful since 2004 and will also be maintained by Valk Welding.

Valk Welding IE

Valk Welding NL

Tradeshows
2024

Sepem Industries Rouen
23.01 - 25.01 (FR)

Technishow
12.03 - 15.03 (NL)

Aqua Nederland
19.03 - 21.03 (NL)

Global Industrie
25.03 - 28.03 (FR)

D2M
27.03 - 28.03 (BE)

Welding Week
14.05 - 16.05 (BE)

Elmia Automation
14.05 - 17.05 (SE)

Mix Noordoost
15.05 - 16.05 (NL)

Welding Week Powered by NIL
01.10 - 03.10 (NL)

Euroblech
22.10 - 25.10 (DE)

www.valkwelding.com