

NETHERLANDS

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Welding robot cell for small-scale series production

Revicon attracts other work with new welding robot cells

The low oil price means that 30% less is being invested worldwide. Supplier Revicon, which was almost entirely dependent on that sector for its specialist upstream oil and gas extraction systems, had to undergo a drastic reorganisation. Revicon has now reduced its manpower and invested in new cutting and welding equipment to produce stainless steel series products on a small-scale basis. Two Valk Welding welding robot cells are playing a vital role in this.



continued on page 2 ➔

Weldingrobot cell in Ferris Wheel concept for Revicon

"Our work in the oil and gas extraction sector means that Revicon has a lot of know-how regarding stainless steel. That is what attracts us to OEMs in other sectors. It takes knowledge and experience to weld a stainless steel product on the outside in such a way that the internal welds go all the way through. It is these competencies that have brought us to the attention of companies such as Lely Industries, who have asked us, together with a colleague, to manufacture all of the stainless steel parts for the arm of their new milking robot. We will also again be producing single wellhead control panels and cabinets in series for a plant in the Middle East. That makes us less dependent on a single sector", explains CEO/owner Sjaak de Koning.

Ferris Wheel concept

Revicon already had a Valk Welding welding robot cell on an H-frame with a jig length of 4 m. "We don't actually make much use of that length in practice because we mostly weld small products. Also, with that set-up you had to walk around for each jig positioning. Looking back, that wasn't the best way of doing things", says Sjaak de Koning. The systems that Revicon builds for the upstream oil and gas extraction are usually one-off custom products that call for a considerable engineering effort. "To produce in series at a small scale you have to take a more lean and mean approach to your production. It must be possible to change products quickly, within no more than 1 minute. That's why the Ferris Wheel concept struck me as being much more suitable for the welding production. In that setup the jig turns on its axis to the operator for each run so that he can continue to work on one side and doesn't lose any time walking backwards and forwards. The products always stay horizontal on the jig supports, like on a fairground big wheel. (ed. The name Ferris Wheel is derived from the world's first big wheel, designed in 1893 by George Ferris.)

Sjaak de Koning: 'We change a product together with the jig within 1 minute.'

Two identical welding robot systems

Valk Welding developed the customer's requirement into a workable concept that also covered the need for an automatic torch change. Sjaak de Koning: "Some products call for both MIG and TIG welding in the same product. If that process change can also be

automated, the conversion no longer forms an obstacle to our choice of process. Valk Welding had the necessary skills to produce to perfection a cell with these functionalities. They had already demonstrated these abilities in the past."

Since the capacity of a single welding robot cell is not enough for the current orders, Valk Welding will shortly also be supplying a second, identical system with a Panasonic TL-1800 welding robot

Short change times

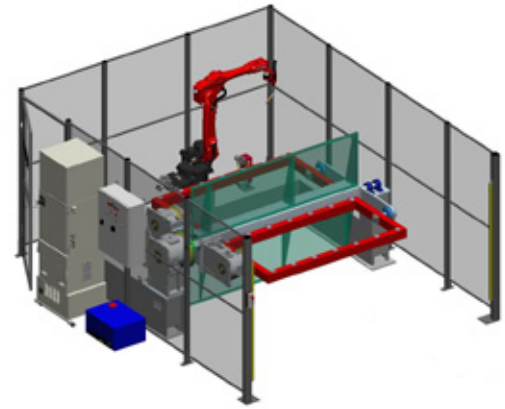
The need to minimise the change times was met on the one hand by the Ferris Wheel concept, and on the other by the welding robot switching fully automatically to the correct welding program. Inductive sensors in the jig system recognise the correct product. "We change a product together with the jig. We have 256 different jigs for each station. We build the welding jigs and the programs ourselves. For that purpose our people already have sufficient experience with DTPS, Panasonic's offline programming software. Although we have to make more effort on the work preparation side, it is more important that the welding robot has a longer operating time and that we are able to change the product within a minute."

Ongoing orders

Sjaak de Koning: "We're not looking for one-off orders but for an ongoing relationship with our partners. Together with the OEMs for which we are now producing the controllers and cabinets we've taken a critical look at the cost of the entire production and assembly process. Making some changes to the product also made it possible to halve the assembly time, which enabled us to sell the product more cheaply. That's how we managed to attract a long-term order together! Lely Industries isn't a new customer of ours either, but until recently we only did prototype building for them. During that period we built up a good working relationship in which our manufacturing knowledge came to the fore. We have an ongoing partnership with Lely, too."

Tripling of production space

De Koning is confident about his company's future. As well as investing in the welding robots and a new Trumpf fiber laser, he has made a start with preparations for the building of an industrial hall measuring 8,000 m². That means that Revicon will have premises covering 12,000m². www.revicon.com




Benefits of the Ferris Wheel concept

- the operator can work from one side
- the operator doesn't lose any time walking backwards and forwards
- the products always stay horizontal on the jig supports
- space is saved
- on a completely movable frame



A stainless steel product welded on the outside and completely welded through to the inside

The welding robot switches automatically between the MIG and TIG torch

 www.youtube.com/valkwelding:
Valk Welding tool exchange system



Always room for improvement

Valk Welding continues to develop hardware

By introducing the fast-change cable set on the torch Valk Welding has once again added a development of its own to the hardware range of the Panasonic welding robots. The new fast-change cable set VWPR-QE (Quick Exchange) makes it possible to quickly and easily replace the cable assembly without any risk of deviations in the Tool Center Point. This results into less work, lower costs and reliability of the TCP without reprogramming. The life cycle of these cable assembly has also been substantially increased.



Sander Verhoef
Wilco Korneef
Ruud van Heek
Klaas van Wingerden



At Valk Welding a team of engineers led by Sander Verhoef is dedicated to the ongoing development of hardware for the robot torch, cable assembly, connection on the robot side and torch exchange system. As well as a cable set that runs externally, from the outside to the robot torch, a specific cable set has also been developed that runs through the hollow arm of the Panasonic TM welding robot to the welding torch. A hybrid version will also be introduced shortly, in which the welding cable, compressed air and water run internally through the axis of the robot and the welding wire is fed externally.

TES (Torch Exchange System)

The concept of the Valk Welding VWPR robot torch makes it possible to quickly and easily change the goose neck by hand. For welding robot systems in a low-manpower production environment, where workpieces are welded by robots using both a MIG and a TIG welding process, or for cycle times longer than 2 to

3 hours for the changing of the wire tips, Valk Welding has developed an automatic torch exchange system so that the welding robot is able to change the torches without the operator needing to intervene.

Own robot torch with shock sensor

Valk Welding delivers welding robot systems that are optimised for the robotised arc welding process. The purpose of this is to make the Valk Welding welding robots as flexibly deployable as possible, which means that they can be quickly programmed and retooled for a new product, and torches and shock sensors are not damaged by any collisions. It also

should not be necessary to reset the welding robot to the deviated TCP, the robot torch and cable set must be quickly and easily changed, without affecting the TCP and the wire must be fed through the set without any faults.

In the past years Valk Welding has therefore developed its own hardware and software components, which are added specifically to the Panasonic arc welding robots. All Valk Welding welding robots are firstly calibrated, which means that they can easily be reset to the original TCP after a collision or fault. Combined with the offline programming aspect TCP is a distinctive feature of Valk Welding's welding robot systems, the benefits of which have been amply demonstrated in practice worldwide.

Also, each welding robot is equipped with a self-developed VWPR robot torch with a shock sensor that ensures that the air pressure is shut down in the event of a collision with the robot torch. That means that Valk Welding robots generally stop without any chance of damage being caused to the robot or torch and can be taken directly back into use once the programming error has been corrected. Valk Welding also uses its own systems for welding seam detection, such as Quick Touch, wire sensing and the Arc-Eye laser sensor system, which navigates the welding robot precisely along the welding seam in realtime. Valk Welding brings welding robot systems on the market with innovations such as described above, which makes them stand out more and more from the competition.



[www.youtube.com/valkwelding:](http://www.youtube.com/valkwelding)
Valk Welding tool exchange system



NETHERLANDS

Delivery times greatly reduced

Valk Welding automates the welding process and logistics of grid manufacturer



Those able to deliver products quickly have a big competitive advantage. That is why since recently the grids manufactured by Las-Pers in Oss, Netherlands, have been welded using the Valk Welding welding production cell. The new process is 60% faster and of higher quality than the previous, very outdated cell. Company manager Antwan van Keulen: "This has made it possible for us to sharply reduce the production time and - accordingly - the delivery times of our grids. And that's what the market wants."



Antwan van Keulen

Las-Pers, whose tailor-made grids are found mainly in industry, utility and home building and in the transport sector, had already automated its production process at an early stage. Antwan van Keulen: "When the time for replacement arrives, that presents an opportunity to make improvements. As well as shorter cycle times we wanted higher quality, the ability to process various sizes at the same time and a higher level of user-friendliness. It had to be possible for employee to operate the cell without any specialist knowledge. Right from the orientation phase on Valk Welding and us were off to a very good start. And the relationship has grown even stronger throughout the process. Their slogan 'The strong connection' is a good match for the DNA of Las-Pers."

Handling and welding in a single production cell

Antwan van Keulen: "Valk Welding produced a clear concept and summarised it in a sound offer that clearly specified all of the parts." The proposal was for a Panasonic TL-20000 WG3 welding robot that welds a raised edge on the grid and a Panasonic HS-165F handling robot that takes the basic grids from a stack and places them on the work table and then stacks the welded grid again. The positioning is carried out by an automatically adjustable jig support system supplied with the roller tracks by third parties. The cell is protected entirely in conformity with the CE standard and comes with an extraction system supplied by Lemtech. www.lemtech.nl



Arc-Eye adapts welding program in realtime to larger front opening

Easy one-man operation

Grids of various sizes are given an edge in the cell. An edging line positioned next to the welding production cell delivers the edges cut precisely to size and in the right order to the worker. The worker prepares the grid and the welding robot then carries out the finishing. The handling robot ensures that the next basic grid is always placed on the worker's table so that he can continue to work in one place. "What this amounts to is that the robots work together with the workers, and in a completely safe way."

Various sizes simultaneously

"Each order involves grids of various sizes. The welding production cell is now able to process them all at the same time. The sizes of the both the grid and the edges are taken from the ERP system. Valk Welding has worked in partnership with Techtron in Veenendaal for the communication between the cell and our ERP system. Valk Welding has ensured that the welding robot always welds the right position of each grid size. We don't even need to program anything ourselves", explains Van Keulen.

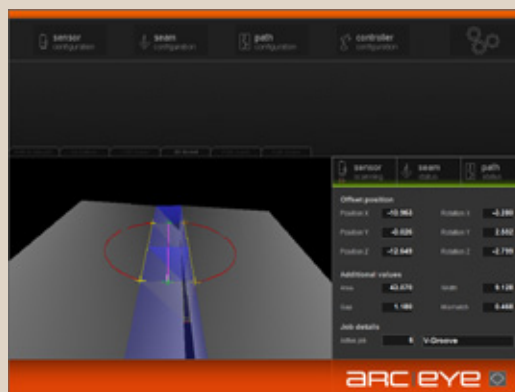
Example for sister companies

"Sister companies from all over Europe are now visiting us to see how we have tackled this. Even though manpower costs much less in Eastern Europe, it is not possible to reduce the delivery times there. Manual welding takes over 3.5 minutes, but we are now able to do this 2 minutes faster per grid. We did of course have to invest in our welding production cell, but the shorter delivery times make it possible for us to keep our order portfolio full. We would now be able to produce an urgent order for 200 m² of grids in a single day", concludes Antwan van Keulen.

www.las-pers.nl



With the Arc-Eye laser sensor Valk Welding has developed a solution of its own for precisely following welding seams. The Arc-Eye laser sensor ensures that the welding torch precisely follows the welding seam in realtime, thus making the highest welding quality possible. That is why welding seam searching with the laser sensor is being used more and more instead of searching with gascup or welding wire.



Adaptive weaving

Valk Welding has now added Adaptive Weaving to the software that provides the communication between the laser sensor and the welding robot. This feature uses the camera to directly register a front opening that is bigger than the specification. With Adaptive Weaving the software adapts the welding parameters in the program in realtime and the pendulum movement of the welding robot is widened and the speed reduced. This makes it possible to achieve a welding seam with sufficiently volume. The welding robot stops if the front opening is too big.

Following welding seams in realtime

The tolerance differences and tensions that occur during the preliminary process and the welding process make it necessary to check whether the position of the welding seam corresponds to the programmed position. Deviations cannot be predicted, which means that the program always has to be corrected first. A search cycle with gas head searching or wire searching is therefore first scheduled in the welding program, which then corrects the deviations in the program. A laser sensor mounted in front of the robot torch scans the welding seam as early as during the welding process and navigates the welding robot in realtime along the welding seam. Not only is this a much faster method, it is also the most precise.

The laser sensor generally used for this projects a laser line onto the welding seam. However in practice the cameras are affected by reflections that can result in unforeseen problems. Valk Welding has solved this problem by scanning the process in a circular motion. A low-reflection 3D image of the welding seam is taken with a single scan and without being adversely affected by reflections.

www.arc-eye.com





BELGIUM



Geert Pas: "Complex task translated into a simple concept"

Robot welds steel buttresses in highly varied small series

Valk Welding has supplied a welding robot system to the Belgian supplier ETS (European Techno Steel), which is used to weld steel buttresses for masonry support. The small series with the wide variety of models presented Valk Welding's software engineers with the big challenge of coming up with an easily operable system. As well as the benefits of automation, the new welding robot system presents a solution to the acute shortage of professional welders and helps ETS to meet the highest welding quality standards.



LEDs on the jig show where the operator has to place the holders.



The holders are placed on the girders without pre-attachment.



ETS specialises in the supply of steel components for house building, utility building and civil works. The emphasis is placed on high-precision products. The production of buttresses for masonry supports accounts for 30% of the company's turnover. The buttresses are sold under the brand name Scaldex by the sales company of the same name on the Belgian and Dutch markets. All of the products are custom-made in small series.

Price and delivery time determinative

To maintain a competitive edge in this market the price has to be right and the delivery time as short as possible. That is the challenge faced by ETS. Manager Geert Pas: "For that reason it made sense to automate the welding process, but the wide variety of positions for the holders and the length, thickness and shape of the girders formed a complex task for a welding robot integrator. But Valk Welding had already provided us with welding robots before and didn't shrink from the challenge. We've known Valk Welding for 20 years now. When they say they're on the case we have the fullest confidence that they'll succeed.

Ease of operation

As well as the need to automate the manual welding production, ETS set ease of operation as a second strict requirement. Geert Pas: "The distance and position of the holders is different for each series. It is important for the operator not to mix up the holder positions. For that reason we asked Valk Welding to develop a jig in which the precise position of the holders was indicated for each series. That makes it possible for an operator to see exactly where the welding robot has to weld a holder on the girder.

Welding robot system on an E-frame

The design delivered by Valk Welding stands out for its simplicity. The welding robot system comprises two identical jig supports that are set up next to each other on an E-frame base. Both jig supports are equipped with an advanced jig that clamps the girders with 3 servomotors. The position where the holders are to be placed are indicated with LEDs on the girder. The position is different for each series. A Panasonic TL-1800 WG welding robot is then used to weld the holders on the girder without any need for pre-attachment.



Program selection with QR code

The apparent simplicity of the system conceals a complex system of data processing, ranging from order input by Scaldex to the automatic configuration of the jig and programming of the welding robot. Scaldex presents its orders in an Excel sheet. The custom software 'Profilemaker' developed by third parties creates an interface with the ERP system of ETS. The numbers and model are thus determined entirely by Scaldex.

The CAM data for the laser cutting machine and work bench for the girders is first generated by the ERP system. The laser engraves a QR code on the girder, which is read out by the operator at the welding robot. That way the cell controls know which order is being processed and the jig and the welding robot are automatically configured. For this purpose Valk Welding's software engineers have developed custom software that dynamically responds to the input parametrically. The robot controls generate the program for the welding robot and the position of the holders is passed on to the jig. For each of the 68 positions LEDs light up to show the position for the buttress type. The operator only has to place the girders in the position shown by an LED and indicate which of the two stations the welding robot is to weld.

Controlled production

Eighty percent of the buttresses are now processed with the new welding robot system. For ETS the investment has greatly increased the output compared to manual welding. "And", emphasises Geert Pas, "our production is now completely controllable and the welding quality is always consistent. The controller lays down the quality and composition of the weld in a report so that we can always demonstrate this in accordance with EN-1090. We also periodically carry out visual weld inspections. The welding robot system enables us to respond more quickly to market demand." www.pas-ets.be

"The strong connection" with the entire supply chain

"The strong connection", Valk Welding's pay-off in all of its advertising communications was also the motto at the trade fair presentation held during the recent Welding Week in Antwerp. The 50th anniversary of Valk Welding Belgium centred during Welding Week not on the products but the company's relationship with its customers, suppliers and employees



With the pay-off "The strong connection", Valk Welding underlines the close relationship with its customers, suppliers and employees. CEO Remco H. Valk: "We are seeing it confirmed time and time again that customers want to build an ongoing customer-supplier relationship. Customers have a need for a supplier who puts himself in their shoes, provides top level support, communicates intensively and empathises with the customer's product. Or in other words, a supplier that is willing to connect with its customers. Putting the customer first and working together on an ongoing relationship based on partnership comes naturally to us. The result is that we come up with the best solution together, in such a way that the supplier can switch flexibly and the customer doesn't waste any valuable time. That is also the idea that underlies our relationship with our suppliers. We have already been working with many of them for years, which means that we know precisely what we expect of each other and are able to quickly respond to each other."

For a number of years Valk Welding has also had a strong connection with education and therefore invests actively in new talent that could later manifest itself as colleagues or customers. Put simply, Valk Welding works on a strong connection throughout the supply chain! See for an impression:



www.youtube.com/valkwelding
50 years Valk Welding Belgium



NETHERLANDS



VDL Bus Modules keeps production in the Netherlands by using welding robots



To stay competitive many coach and bus manufacturers move their production to low-wage countries. VDL Bus Modules has taken a different approach by investing in automation, including welding robots, to keep the cost price down. Keeping as much production as possible in its own country is a policy of the VDL Group. Valk Welding has now delivered the first welding robot cell. As well as complete 2D frames, the welding robots will also be welding side, front and back panels. "This is the future", says a worker as he proudly shows the new welding robot cell to visitors.

Frank van Geel, CEO of VDL Bus Modules: "Bus production is what we call 'hand and head' production. Up until now everything was welded manually at VDL Bus Modules. There are many variants and customer-specific adjustments, and this is a small-volume setting. But cost engineering has of course been carefully considered throughout the engineering process. We have focused on how we can develop modules in such a way that they have the same dimensions and are therefore more suitable for welding robots. A start has now been made with welding robot automation by welding the 2D cross sections for the basic frames. Robotisation is a good way of producing more cheaply in an expensive setting. Our aim is to reduce the cost price and keep production in our own country."

Preliminary process optimised
Peter de Weerd, plant manager at VDL Bus Modules, was initially sceptical about welding thin-walled tube sections with robots. "The tubes must be accurately fitted together: even with the smallest imperfection the weld will fall through the gap. Manual welding gives you more control of this. For that reason we started by optimising the preliminary process of sawing and drilling by investing in a saw machine. Valk Welding also helped us with programming the welding robot. With their support we've got off to a flying start and have the welding process with the robot completely under control."

Philosophy underlying the welding jigs
The 2D frame sections (cross sections) used to be welded manually on large welding jigs that were tilted manually. Peter de Weerd: "The jigs were developed as far back as 2 years ago with the aim of using them on a welding robot at a later date. The intersections of the tubular frame sections can therefore be reached on 2 sides, so that the robot can weld the product all around. Valk Welding has supplied a welding robot system with four jig supports, in which four welding jigs (two by two) are placed in positioners. We can use these 4 jigs for a total of 14 different products (cross sections). A Panasonic TL 1800 welding robot is used to make 1 set of 5 cross sections for each bus in each production run, without having to change the jigs. This eliminates all losses caused by temporary storage, transport, jig changes, etc."

Basic course

Bart Oppenheim, responsible for the programming of the CNC machines at VDL Bus Modules, followed a basic course in robot welding and DTPS at Valk Welding in Alblasterdam together with 2 manual welders. Bart now programs using DTPS from his PC at the office, and the 2 manual welders are responsible for operating the welding robot. For this purpose Valk Welding supplied the 3D simulation of the welding robot system in DTPS and VDL Bus Modules added the jigs and 2D cross sections to this from their own CAD system. Peter de Weerd: "After a three-week course we were able to work independently. Up until now we haven't needed to make a single service call.

One piece flow

The tubes are now delivered straight from the sawing line to the welding robot and positioned on the welding jigs to be welded

by the welding robot. Once one side has been welded, the positioner turns the jig so that the welding robot can weld the other side of the intersections. This makes one-piece flow production possible for each cross section. The cross sections are then assembled at an adjacent department into a complete frame, on which the entire bus is built. Frank van Geel: "We made a conscious decision to start by using the welding robotisation for the 2D cross sections because the level of complexity is low. By using the welding robot we are able not only to achieve cost savings, but also a consistent welding quality, which translates into cost control and quality management. That is a perfect fit for the high quality standard of the VDL Group."

VDL Bus Modules

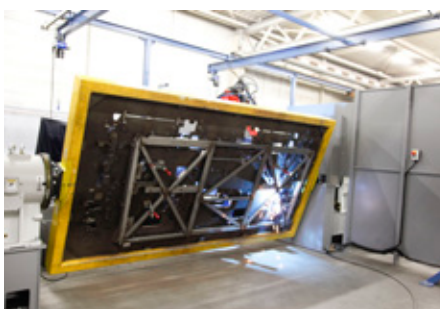
VVDL Bus Modules produces modules for luxury coaches, double deckers, VIP coaches,

regional public transport buses, and also carries out special projects. VDL Bus Modules is one of the 5 production locations of VDL Bus & Coach, an international company that concentrates on the development, production and sale of a broad range of touring cars, public transport buses and chassis. VDL Bus & Coach is a division of the VDL Group, an international industrial company comprising 87 operating companies throughout 19 countries and employing 10,500 people. The modules produced by VDL Bus Modules are sent to the production location VDL Bus Valkenswaard, where they are assembled on the production line. VDL Bus Modules and VDL Bus Valkenswaard together produce approximately 700 touring coaches a year.

www.vdlbuscoach.com



Cross sections were welded manually until recently



Cross sections are now welded by the welding robot...



... and directly assembled into a complete frame.

3D metal printing with the welding robot

If plastic printers can build a 3D product by melting plastic thread in the right place, it should be possible to do the same with a welding robot. That was the idea when Valk Welding started experimenting with melting welding wire in a 3D model. Valk Welding presented first examples at the Technishow. Managing Director Adriaan Broere: "We want to show the market that this system can be used to make products that can't yet be made using existing technologies.

Adriaan Broere: "Welding basically amounts to a form of 3D printing. We have a customer that has already been using MIG welding to weld products with the welding robot and then machine them to size. To do this in free space we have developed an advanced plugin for DTPS that you can use to very easily program many shapes and 'print' them with the welding robot. By having the welding robot repeatedly melt off a piece of welding wire you can build up a workpiece without needing to use a jig.

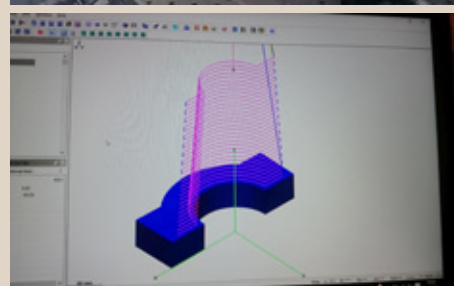
Large objects possible

By way of example Valk Welding presented a large design plinth on which a welding robot was placed. "Milling such a large form out

of metal or 3D metal printing would be very expensive. With the design plinth, 3D welded with the welding robot, we are demonstrating that we can 'print' larger objects than with the current powder printers. But other possibilities include spare parts in a complex shape, when you only need a few of them", explains Adriaan Broere.

Cold welding process

"It's best to use a 'cold' welding process, which still provides a good homogeneous connection. Panasonic's Active Wire Process offers outstanding ways of doing this", concludes Adriaan Broere.





EUROPE



New Wire Wizard catalogue

The new Wire Wizard catalogue has been published. This catalogue sets out the complete range of Wire Wizard wire feed components. As well as the existing products, the catalogue contains a number of new ones, such as the Spatter Shield system, the new PFA unit, the new Wire Guide Modules and new liners.

Download the new brochure at: www.wirewizard.eu



New: Spatter Shield reduces spattering



The Spatter Shield is the latest technology to reduce the effect of spattering during the welding process. The unit atomises the specially designed liquid in the protective gas and creates a coating on the welding spatter, which prevents it from sticking to the work-piece and the welding pistol components. Spatter Shield is suitable for welding on steel and stainless steel in both robotised and automated welding processes and with MIG/MAG systems.



www.youtube.com/valkwelding:
Wire-Wizard MIG Transit Sprayer

New model PFA motor



The Wire Wizard program has been extended with a new model PFA unit. This has the big advantage over its predecessor that it does not require any oil lubrication. That in turn makes it much easier to control the unit with an electric air valve, such as that on a robot system. The alignment of the wire drive rollers has also been improved.

Super flexible wire cable

The familiar black wire cable is sometimes too stiff for situations in which the robot is used in a very small welding cell and there is little space between the wire motor and the back partition. Combined with the high speed of the robot arm this can sometimes cause damage to the wire motor connector. The new super flexible wire cable FC-E solves this problem and adapts itself easily to even the smallest bend.



Flex module

The Wire Wizard team is hoping to shortly be able to supply the flex module as the latest revolution in wire feeding. This flex module is similar to the familiar Kabelschlepp used on all robots with a longitudinal movement. But this module is fitted with roller bearings to feed the welding wire without any friction being caused. Until recently these were precisely the systems that could not be used with the existing Wire Guide Modules. The new flex module makes it possible to feed welding wire free of friction and without an auxiliary motor for these systems too.



Torch products



Whereas the Wire Wizard product line used to go up to the wire feeder motor, it now goes further and also delivers a solution for feeding the welding wire in the torch set.

The new Wire Wizard's spirals, that are made with an elliptical wire, offer the same technology as the large wire cable but in miniaturised form. The wire is subject to considerably less resistance in these spirals. That makes it easier to feed the wire with less wear being caused in the wire motor parts. Order one and test it for yourself in your system.



CZECH
REPUBLIC

Two welding robots installed in one year

Valk Welding installed two arc welding robots at the Czech company ZK Žerníček Kovovýroba s.r.o., which is active on the market since 1991, when founded by the current owner Josef Žerníček. Till nowadays the business grew into middle sized company with 60 qualified employees. Main portfolio of the products consists of metal

transportation pallets mainly for automotive industry. Due to interest of the management supported by strong market request the automation is one main targets being solved in the company. For robotisation of the welding processes one of the market leaders Valk Welding was chosen.

Start of robotisation

„In 2014, thinking how to effectively utilize European subsidy program, our first choice was welding robot “ say Petr Žerníček, sales director of ZK Žerníček Kovovýroba, “the fact we have bought the second robot twelve months after the first one, I think confirms the idea was good as well as the choice on Valk Welding as a supplier. We have been in touch with the gentlemen from this company already for some time before purchase of the first robot and realization of the project and now I can say this project just confirmed our choice was good”

Constant quality with less manpower

Panasonic welding robots in Valk Welding robot systems belongs to one of the most advanced solutions in this field of technology. “We have automated in this way production of large as well as small series. We try to use robot for products with a lot of welds, where constant quality and the fact that the robot never forget any single weld is very appreciated. “ states Petr Žerníček, who also added, that one of other motivation to install welding robots is lack of qualified welders on the mar-

ket, “It is like that, I personally do not believe that this trend will change, in near future the importance of new modern technologies will be only growing. We are ready”

Simple concept robot systems

Two robots was installed in last two years in ZK Kovovýroba Žerníček. They are both Panasonic robots (TA1900WG and TL2000WG), both systems are similar two station concept, where products of max dimensions 3000x1200mm can be processed. Practice has shown that installation of Quick Touch sensor was perfect idea and was found not only helpful but also necessary.

Competence of the supplier

Satisfaction with quality and professional approach of Valk Welding expressed also founder and owner Josef Žerníček: „Of course every company starting with robotisation will face some troubles, which will pop up only when production is started, but especially then you will appreciate strong competence of the supplier, just as Valk Welding has shown during realization of our projects.” Based on these successful projects of robotisation ZK Kovovýroba forecast further

automation projects in their production. Petr Žerníček: “We are looking for other markets than automotive industry. This year we plan to buy profile laser cutting machine, which will open for us further possibilities. In regard of welding robots we think about bigger installation, to allow us to process larger products.” Most probably that will be the robot located on longitudinal track. Exact spec we will discuss with Valk Welding. “

ZK Žerníček Kovovýroba – 25 years on the market

90% of production of metal pallets is exported from small town Štítý in region of Jeseníky mountains to Germany and other EU countries.

Company do not produce only those pallets but also supply other components like metal jalousie, grids, baskets, frames, agricultural machines parts and other metal products in the facilities equipped with welding, cutting, machining, painting and assembly shops.

www.kovozernicek.cz



Energy savings with auto-power down function



With the G3 robot controller it is possible to configure a time interval for auto-power down. This shuts down all of the servomotors after the configured time interval so that they no longer use any power. Taken over a longer period this leads to energy savings, especially in the case of systems with unplanned downtimes. An added advantage is that other peripheral components, such as fans, are shut down as well. This greatly reduces the accumulation of dust, which also yields savings from a service viewpoint.

Reducing power consumption has been a topical theme in industry for some time, not only with a view to saving costs but also from an environmental perspective. Machines and systems that stay switched on all day use a lot of energy. With the Eco Ideas program Panasonic has set itself the challenge of reducing the CO₂ emissions of all its own production facilities as well as the power consumption of its products.

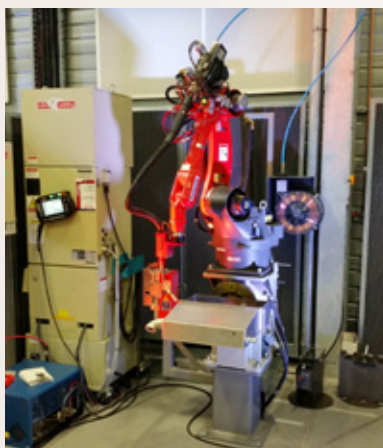


Proxinnov and Valk Welding show the French manufacturing industry the possibilities of robot welding



To inform the metalworking industry in the Western France region about the benefits and possibilities offered by robot welding, the regional innovation platform Proxinnov in La Roche sur Yon has organised a technical seminar on this subject together with Valk Welding. Welding robotisation makes it possible for metalworking companies to largely improve their welding quality and productivity, and thus increase their market share. Its specialised knowledge of robot welding makes Valk Welding the ideal partner for Proxinnov to provide the technical content of this seminar. Since 2013 Proxinnov has focused on innovation and robotisation in general and helps companies with their automation projects. Proxinnov is the binding and stimulating factor in the network of partners, experts and suppliers (The strong connection).

As a welding robot integrator Valk Welding is closely involved in the network, not only for its technical contribution but also for its knowledge in the area of welding robotisation. In that context Valk Welding has already previously made a welding robot available to Proxinnov, and last year Valk Welding, together with other suppliers, took part in a general robotisation day at Proxinnov. As well as companies wishing to make a start with welding robotisation, both parties focus on companies that want to find out more about welding robotisation and put this technology in their production facilities.



Tradeshows

Elmia Automation

Jönköping, Sweden
10-13 may 2016

Technisch Industriële Vakbeurs

Hardenberg, Netherlands
06-09 september 2016

Brno MSV 2016

Brno, Czech Republic
03-07 september 2016

Expowelding 2016

Sosnowiec, Poland
18-20 oktober 2016

NIL Verbindingsweek 2016

Gorinchem, Netherlands
01-03 november 2016

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The strong connection