



## EASY PROGRAMMING FOR WELDING ROBOTS

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In order to enable staff without any specific welding skills to program a welding robot, Panasonic has developed G3 Weld Navigation software for its new robot control system. With this software, staff can easily make a program for a Panasonic welding robot on a teach pendant or a PC. On the basis of the

entered material type and thickness and the type of weld required, G3 Weld Navigation will establish the correct parameter settings for current intensity, voltage and welding speed. The software also gives advice on the correct torch angle and the TCP offset to create the perfect weld. This makes producing a program for the welding robot not only easier, but also faster.



In practice, welding robots are usually programmed by technically trained staff at medium or higher vocational training level, with some years of experience in welding. There has been a drop in the influx of young people with technical training at that level. Moreover, many SMEs operating as supplying companies are still rather reluctant when it comes to welding robotization. G3 Weld

Navigation should make the use of welding robots accessible to that category, without being dependent on staff with specific knowledge. This means that Valk Welding is adding an extra dimension to the current software systems for programming welding robots.

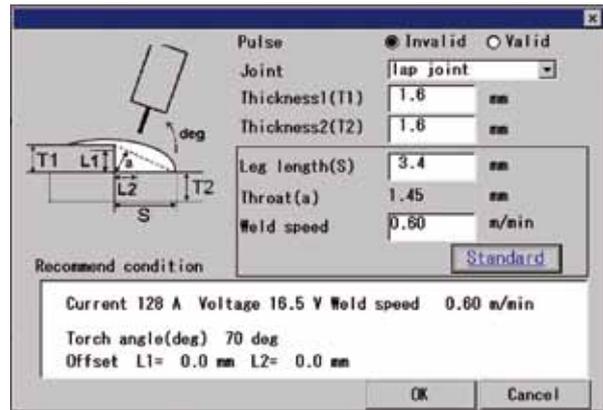
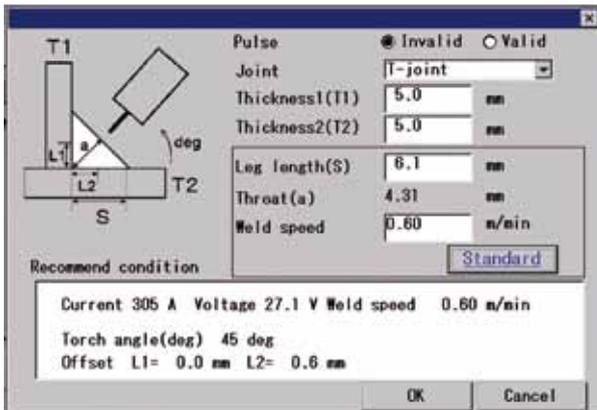
G3 Weld Navigation is a standard feature in the new Panasonic G3 robot control system.



# G3: THE NEW GENERATION OF WELDING ROBOT CONTROL SYSTEMS

Panasonic has developed a new G3 control system for its welding robots. The new system succeeds the 10-year-old G2 control system, many thousands of which were sold all over the world at the time. The new generation is characterized by the very powerful CPU, whose higher speed and processing power allows for an enormous advance in performance.

The main CPU is 6 times faster than the previous generation. This means that robot instructions and path movements can be even more detailed and accurate, while the options of specific software features can be further extended. The TAWERS welding robots can also accelerate and slow down, which means that the idle times can be reduced to 10%.



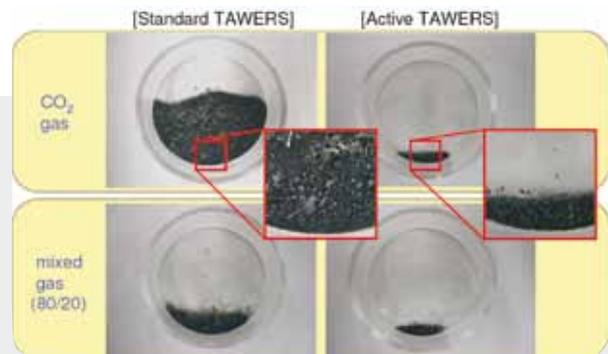
WITH G3 IT IS NO LONGER NECESSARY TO SET THE WELDING PARAMETERS OR USE TABLES FOR EACH PROGRAM. THIS NOT ONLY MAKES PROGRAMMING A LOT EASIER, BUT IT ALSO MAKES IT A LOT **FASTER**.

### Quicker and easier programming

With G3 Weld Navigation, Panasonic adds a new dimension to programming. While previously it was necessary to set all the welding parameters or use tables for each program, this is no longer the case when G3 Weld Navigation is used. This not only makes programming a lot easier, but it also makes it a lot faster. This means that a "beginner" can easily learn the programming procedure of G3 Weld Navigation. Because of the higher processing power, the control system also responds much more quickly.

### 80% less splashing with Active Wire

Another innovation is the Active Wire process, which can be supplied optionally on the G3 control system. In Active Wire, the welding wire is also actively guided backwards, which means that an 80% reduction in splashing during the welding process can be achieved. This gives optimum welding results, mainly in thin-walled and stainless steel.



### 35% shorter startup time

Because of the higher processing power of the new G3 control system, communication with the welding robot is much quicker than was the case in the previous generation of G2 control systems. This not only allows for extremely accurate path calculations, but also ensures that the screen images are shown more quickly than was the case previously. The control system also starts more quickly: it is 35% faster than its predecessor.

### Hardware further improved

In terms of hardware, the new G3 generation comes standard with an Ethernet network connection, and its memory can be expanded flexibly by means of SD and USB 2.0. Panasonic has also considered maintenance and for that reason has improved aspects such as the accessibility of the control cabinet. The G3 control unit has a cooling system with air inlet on both sides of the unit and a double filter system, so that dust cannot gain access to the electronics.

## HAESEVOETS WORKS FASTER WITH G3

Panasonic Welding Systems released a limited number of G3 systems for sale before the official release date of 1 Oktober. This meant that Haesevoets from Herk-de-Stad (Belgium), which wanted to replace four Panasonic welding robots, could be the first company in Europe to experience the new G3 control system.



programmer Marc Vanhentenryk



Haesevoets is one of the larger metal-processing supplying companies in Belgium, and with its 24 Panasonic welding robots and 25 years of experience with those robots it is a pioneer in welding automation. Benny Vaesen, managing director, initially thought that the simplified programming procedure of G3 Weld Navigation would not have all that many advantages for an expert with a lot of welding experience. "We know better now. Since commissioning the new welding robots with the G3 control system, the new ones are always the first ones to be occupied. Although an expert doesn't really need those presettings, G3 Weld Navigation works quicker and is easier to use. The programmer only has to occupy himself with the welding process to be followed. The control system automatically enters the welding details, such as welding current, voltage and welding speed, on the basis of

the type of joint and the type of material. You notice in everything that communication with the welding robot is much quicker than was the case in G2, the previous generation of control systems. This is obvious when you look at the screen images, which are shown without any delay. Because of the G3 control system we can respond even faster and in a more flexible way to market demands. I think that G3 Weld Navigation would be even more advantageous for companies that are considering robot automation.

BENNY VAESEN, MANAGING DIRECTOR OF HAESEVOETS: "OPERATION AND PROGRAMMING WITH G3 WELD NAVIGATION IS FASTER AND EASIER TO LEARN, ESPECIALLY FOR PEOPLE WITHOUT ANY TECHNICAL WELDING EXPERIENCE."

## VALK WELDING CONTINUES TO GROW IN EASTERN EUROPE

Having set up its own site in the Czech Republic in 2004, Valk Welding is still a young player in the Eastern-European market. However, the employees of the Czech site are managing to expand Valk Welding's market share.

Following the successful completion of a number of welding-automation projects for Czech and Polish manufacturers of trailers for the lorry and transport industry, Valk Welding has managed to expand its portfolio to dozens of satisfied users in the Czech, Slovak and Polish metal industry. At the moment, Valk Welding maintains more than 250 installed Panasonic welding robots in this region, ensuring that Valk Welding acquired an important position as robot integrator for arc-welding applications over the past seven years. Jakub Vavrecka is responsible for Eastern-European activities as Branch Manager of Valk Welding CZ, and he commented "With our portfolio, our market share in this region has also expanded over the past seven years. We serve small and large companies and their series range from small to large. Therefore we supply both small standard welding-robot cells and large or even mega-large systems.

The combination of local market knowledge and experience gained in international projects have produced satisfied clients and contributed to our success."

### Knowledge Advantage

"With the know-how of our Dutch colleagues we could deliver high levels of quality right from the start, and that enabled us to build up an excellent reputation for Valk Welding as a brand. In 2009, we took our biggest step forward with the opening of our technical centre and storage facilities in the area near Ostrava Airport. From that base we offer our Czech, Slovak and Polish clients a wide range of services, which they value enormously", says Jakub Vavrecka

### Gain confidence

Jakub Vavrecka continues "Our way of doing business goes beyond supplying welding-robot systems. Making sure that those systems are maintained by the

right people is important in safeguarding continuity. I am proud of the fact that we have managed to build up a strong team over the past seven years, with motivated employees for whom satisfied clients are the most important target. Every new problem has to be seen as a challenge to seek a solution, allowing us to gain 100% confidence from every client. We believe that is the basis for successful sales of welding-robot systems and welding consumables."

### Welding wire available from stock

The engineers of Valk Welding CZ develop the welding robots. They are built at Valk Welding in Alblasserdam (NL). The final elements are put in place by

employees of the CZ team in the presence of the buyer. Jakub Vavrecka says "This means we don't have any welding robots in stock here, but we do have the consumables. In order to meet the demand for welding wire, we improved the logistics in particular. Commissioning the new storage facilities offered us the opportunity to do so. In Mosnov, we now have a hundred tonnes of welding wire of various types and diameters in stock so that we can supply our clients in the region within one or two days. Together with our main site in the Netherlands, Valk Welding has stocks that enable us to distribute 500 to 600 tonnes of welding wire a month throughout Europe.



# VALK WELDING AUTOMATES WELDING PRODUCTION AT THYSSENKRUPP ENCASA

By commissioning four welding robot systems and automating the programming procedure at ThyssenKrupp Encasa in Krimpen aan den IJssel (NL), Valk Welding has managed to create the factory of the future. The factory produces rail segments for stairlifts, fully automatically as specified by the customer and in a batch size of 1. Erik Steenkamer, Director: This new automation means that we can deal with the growing market demand and guarantee the high quality of our products, without having to turn to the labour market.



ERIK STEENKAMER, DIRECTOR: "THIS NEW AUTOMATION MEANS THAT WE CAN DEAL WITH THE GROWING MARKET DEMAND AND GUARANTEE THE HIGH QUALITY OF OUR PRODUCTS."

As a stairlift has to be custom made for each house, each rail system is different. The production of the segments of which the rail system consists is therefore determined by single piece production. ThyssenKrupp Encasa has developed a concept with Valk Welding whereby all the geometric data from the CAD files is fully automatically converted

### Welding programs generated automatically

The data from the CAD application is used to generate programs for the bending machine and the welding robots, and for cutting the rack strips. Valk Welding has developed intelligent software which enables it to program the 8 and 9-axis robot systems fully automatically. This software recogni-



into welding programs for the robots. A distinction is made between straight and bent rail segments, which are welded on robots with a 2D and 3D segment respectively. The IT departments of both companies worked closely together in order to realize this kind of automated programming.

zes which type of product is involved and calculates the relevant optimum routing. If, due to the free-form bending process, a collision nevertheless occurs in the calculated programs, the software will determine this and will automatically suggest a clash-free solution.

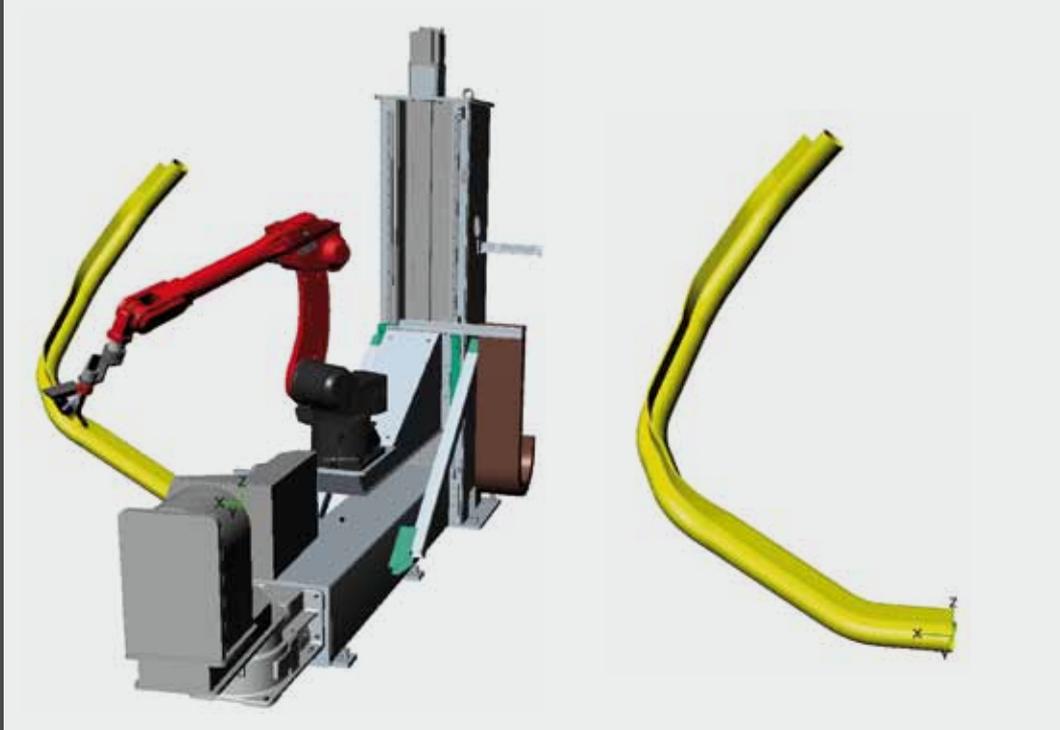
### Mass customization

For this purpose, Valk Welding has used the Panasonic DTPS system and Automatic Program Generation (APG), a toolkit developed by Valk Welding for the automatic generation of programs. It has also written a custom made software program, the so-called Custom Made Robot Software (CMRS), to make sure that the output of ThyssenKrupp Encasa's ICT systems is fully synchronized with the software. This means that nothing has to be programmed at the production department anymore. Each product has been provided with a barcode label which enables the staff of ThyssenKrupp Encasa to access the program for the relevant procedure (bending and welding). This working method is based on the principle of Mass Customization: the manufacture of customer-specific products on a serial basis.

### Automatic Program Generation (APG)

Automatic Program Generation (APG) is a toolkit developed by Valk Welding, which can be used to automatically generate welding programs on the basis of data from ERP, CAD systems and Excel sheets. In addition to programs for the welding

ThyssenKrupp Encasa makes stairlifts. The increased ageing of society means that market demand - and therefore also the production volume - is increasing by 4 to 5 % annually.



robot, it also contains the positioning of the welding torch, the torch angle and the correct welding parameters, such as amperage, voltage, weaving parameters, crater fill parameters, etc. APG offers the advantage that the programming requires less qualified people. It also saves a considerable amount of time during work preparation.

robots with double positioners, so that they can be used to apply the final welding to the bent rail segments; this means that the robot welding torch can weld the rail segments at a right angle for the entire 3D procedure. The fourth robot has been equipped with a height adjustment for very complex and very large tubes.

that was our main priority. Most companies can supply a welding robot, but making it into a properly functioning application is quite a different story. Because of their expertise in welding and IT, and as a result of intensive collaboration, they have succeeded in achieving this."



The operator downloads the orders from the system at a workstation between the two cells. Here too the barcode of the relevant rail segment is linked to the welding program, so that the operator only has to access to program and mount the segment. The welding robots check the rail segments for any deviations in dimensions before welding can start. For that purpose, the welding robots have been fitted with a vision system (rotating laser CSS Weldsensor from OST-SmartLine) on the head, which scans the welds by zone and automatically corrects dimensions that deviate from the 3D data.

#### Factory of the future

In order to create the factory of the future, ThyssenKrupp Encasa has also digitalized the entire measuring procedure. Each project is recorded with a digital camera according to the EZEE survey system. Special software interprets the digital photos and converts this data into a 3D model of the stair. During the job preparation, the rail segments are generated in a special FLOWCAD application. In doing so, ThyssenKrupp Encasa has reduced the entire procedure of measuring and dimensioning the rail parts from several weeks to a few hours, with error elimination as the most important advantage. The digital measuring procedure, automatic programming during job preparation and the robotization of the complete welding procedure have meant that ThyssenKrupp Encasa has achieved its aim to create a factory for the future.

#### Four welding robots

In ThyssenKrupp Encasa's fully upgraded production department for rail segments, the tubes and rack strips are bent, the rack strips are fixed, and they are then welded on two sides on the welding robots. Valk Welding has supplied four welding robots in total for this purpose. Valk Welding has fitted the 3D welding

#### First experience of welding robots

ThyssenKrupp Encasa had no previous experience of the use of welding robots. The whole process was done by hand. Now it is only the rail segments which are attached by hand. When selecting the suppliers, the stairlift producer was looking mainly for a company specialising in welding robots, which could incorporate programming into the production process. Erik Steenkamer, Director: "Valk Welding is well-known in the market. From the design stage, it has been actively involved in discussions on how the IT processes could be linked together. And

[www.tkacc.nl](http://www.tkacc.nl)

A movie of the installation is shown on: [www.valkwelding.nl/video-tke](http://www.valkwelding.nl/video-tke)

# WELDING ROBOTS FOR SINGLE PIECE PRODUCTION WITH CM

For many hall builders, welding compound steel constructions is often large welding lengths by hand is labour intensive is therefore the obvious step, but its positive contribution is limited. The APG (Automated Programming Guide) by Valk Welding's software engineers, facilitates the automation of the sector to such an extent that even single pieces can be completed. The welding robot supplied by Valk Welding to the Danish steel construction company is an example of its application.



Valk Welding supplied a robot system for the production of single piece composite beams for Danish steel construction company

Thyssen Staal A/S is a steel construction company which has its own production facility. The company had tried before to automate the welding of composite beams with a welding robot, but because the robot had a closed, inaccessible software system, it could no longer be used when the supplier went bankrupt. The company's owner, Hans Jørn Thyssen, therefore decided that a new robot should be programmed on the basis of open source software. In response, Valk Welding developed a programming system on the basis of Panasonic's DTSPS offline programming system in combination with APG. Its software engineers built a software skin, developed specifically for Thyssen, around this offline programming system, which means that staff only have to enter the dimensions by means of a GUI (graphical user interface). The welding programs are then created fully automatically.

### Open Source software

Daniël de Baat, software engineer at Valk Welding, has written the macros for the open source software in Visual Basic. "The open source software contains the customer-specific information for welding composite beam-structures. They have been written especially for Thyssen Staal and can be controlled and monitored by the customer, without being dependent on third parties. This means that the customer can decide its own variables. The description of the welding parameters, the positioning of the welding torch, the torch angle, the welding current intensity, the voltage, etc. is stored in the underlying DTSPS programming system. This means that Thyssen Staal only has to enter the dimensions and positions of the structure's cross links. The software then automatically generates the programs, and the robot can start on the job."



### Link to ERP/Excel

The design of a steel structure results in quite a long shopping list of compound girders, in which the number of sections, lengths and positions of the parts to be assembled are described in an Excel sheet. APG scans this list and makes sure that the programs for the welding robot are generated automatically on the basis of this data. This has meant that the whole job preparation process at Thyssen Staal could be reduced considerably.

### Welding with 1.3 m/min

The complete system consists of two welding stations of 13 and 9 metres and two welding

robots on a gallow type structure, which can be used on a 32-metre track for both 1 and 2 composite beamstructures. The Panasonic Tawers welding robots have a reach of nearly 4 metres. Because of the integration of power source and robot operation into one fast CPU, the welding robots reach a welding speed of 1.3 m/min. That high speed was also an important condition for being able to make such an investment cost efficient. To make sure that the programmed position of the weld corresponds to the actual position, Valk Welding uses a fully automatic weld tracking system, which measures the position by means of arc voltage. This tracking method



# STEEL CONSTRUCTION CMRS/APG

is still the most critical link in the entire value chain. It is often time consuming. Automation of the welding process is programmed as programming often small numbers in changing (Dynamic Program Generation) toolkit, which has been developed as a part of the programming process in sectors such as the steel construction and quickly and cost-effectively. The steel construction firm Thyssen Staal A/S is a representative



"WITH THIS SYSTEM WE HAVE A VERSATILE AND EFFICIENT SOLUTION, BASED ON AN OPEN ARCHITECTURE, WHERE A PROGRAMMER WITH KNOWLEDGE OF EXCEL AND VISUAL BASIC CAN EASILY WRITE A PROGRAM FOR THE WELDING ROBOT", POINTS OUT

HANS JØRN THYSSEN.



(seam tracking) is already being used by many of Valk Welding's customers.

### Backup by a large organization one of Thyssen's conditions

According to Hans Jørn Thyssen, one of the most important criteria when choosing the supplier was that the supplier had to be able to provide sufficient backup with its organization in the event of an emergency. "Valk Welding meets that criteria perfectly, as it offers backup from its head office in the Netherlands as well as local services based in Denmark. Also, at Valk Welding both system and software come from one single organization.

That means that the customer has one point of contact," Hans Jørn Thyssen points out.

### Collaboration with Voortman

Meanwhile, Valk Welding has received new orders for the supply of similar equipment for its customers in other countries, including France and Belgium. The collaboration with Voortman Automatisering, on behalf of which Valk Welding supplies cutting robots for steel construction, is leading to further contacts in that sector, all of which require welding robots with customer-specific software for the production of single pieces.

### Cutting robots for steel construction

Valk Welding builds and supplies the plasma cutting robots for Voortman's beam coping systems. They can cut the most complex shapes, and they can apply markings onto beams.

Voortman has already supplied more than 25 of these systems throughout the world, including to its sister company Voortman Staalbouw. See also the video of V808M Beam Coping System at: [www.valkwelding.nl/video-v808m](http://www.valkwelding.nl/video-v808m)

## SOFTWARE PLAYS AN INCREASINGLY IMPORTANT ROLE

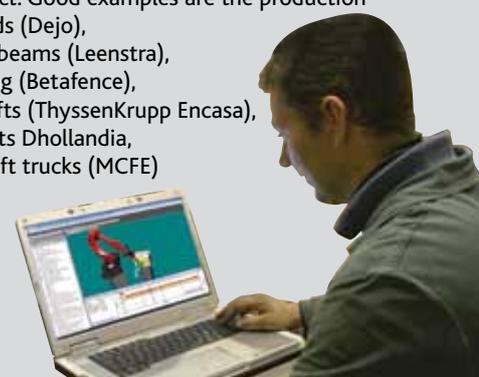
Now that welding robots in steel construction have facilitated an enormous boost in automation at the production department, the focus is moved increasingly to the programming element. There is scope for a considerable efficiency improvement in this respect. For that purpose, Valk Welding has already been offering the DTPS programming system, which allows Panasonic welding robots to be programmed independently from production, for the last fifteen years. As the programs made offline can be finished directly by the robot, and almost without any corrections, this programming system can save a huge amount of time in the production process. Ongoing developments

in DTPS software have meant that the entire programming element is taking place faster and faster. The programming time on the current version could therefore be reduced considerably, and it is now only one tenth of what it was initially.

### Further automation required

Market developments are nevertheless calling for the further reduction and simplification of the programming element. Automation of the programming has therefore become a hot item. With the development of CMRS and APG software, Valk Welding offers programming automation on the basis of data from CAD, ERP, Excel or SQL. Such software is in-

tended mainly for the variable production of similar products, as is the case, for instance, with manufacturers who make their own product. Good examples are the production of grids (Dejo), lintel beams (Leenstra), fencing (Betafence), stairlifts (ThyssenKrupp Encasa), tail lifts Dholdandia, fork-lift trucks (MCFE)



# VALK WELDING TORCHES A DURABLE PRODUCT



The fact that Valk Welding goes for quality and knowhow rather than the lowest price, is reason for Anne van Loon to draw attention once again the quality image of Valk Welding's welding torches. Anne van Loon is the person responsible for the welding torches, its consumables, anti spatter spray and 3M safety products. In addition to selling via a selected dealer channel, most products can be supplied directly to a number of large end users. By supplying products under its own label, Valk Welding wishes to supply a complete programme to the market and promote itself as a quality brand.

Anne van Loon



## WELDING TORCHES, MADE FOR LONG-TERM USE

Valk Welding welding torches are produced by a German manufacturer. The well-known German thoroughness guarantees a robust piece of equipment, intended for long-term use. "This means that our welding torches are not bought to be used only once; if that's what you want you're better off with a cheap Chinese product," explains Anne van Loon. "Our Valk Welding welding torches are very durable, and that's the reason why our dealers like to sell this product. That this means that you can't compete with those torches in the lower price segment is not an issue for them." If the torch is damaged or worn, it is often worthwhile to get it repaired; Valk Welding offers a repair service for that purpose. The torches can be supplied in gas and water-cooled versions, from 170 to 500 Ampere. For more information contact Anne van Loon: [AVL@valkwelding.com](mailto:AVL@valkwelding.com)



## NEW SPEEDGLAS 9100 WELDING HELMETS

Valk Welding is authorized dealer for 3M safety products. This means that the company supplies Speedglas welding helmets, dust masks, ear protectors and safety goggles

from the 3M product range. What is new is the Speedglas 9100 series of welding helmets, which have been greatly improved, mainly in terms of user comfort. 3M has developed a new headband for the Speedglas welding helmets, which removes pressure from vulnerable points. The new helmet can also be opened in all positions without putting too much pressure on the neck. The welding shield comes standard with an automatic, dark-colouring welding filter, which can be used in combination with the 3M™ Adflo™ motor-driven breath protection or the 3M™ Fresh-Air™ C fresh air regulating valve. This means that 3M has a welding shield offering optimum eye, face and breathing protection. Speedglas welding helmets are the most frequently sold helmets in Europe. Valk Welding can supply those helmets from stock, it gives a 24-month guarantee from the selling date and it offers its own repair service providing the necessary technical and or commercial support.

## VALK WELDING ANTI-SPATTER SPRAY



Many of our customers know that we supply anti-spatter spray in spray cans. But there are not so many customers who know that we also supply this in jerry-cans of 5, 10, 20 or even 200 litres. An economical solution for bulk consumers.

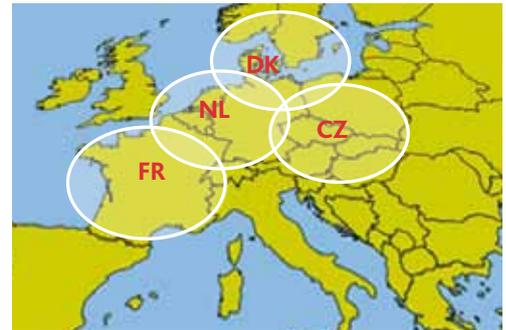
## PREVENT DAMAGE TO THE RESPIRATORY



In an environment where people are grinding, cutting, soldering, welding, drilling, etc., fine dust particles will be left behind in the air, which can cause damage to the respiratory system. Valk Welding supplies 3M dust masks in different protective factors, which will prevent your staff from being exposed to this fine dust.

# VALK WELDING'S WELDING WIRE NOW DISTRIBUTED THROUGHOUT EUROPE

Valk Welding now supplies its welding wire in a large part of Europe, which means that the distribution area has been extended to far beyond the Benelux countries. The company not only wants to serve its international customers, but it also wishes to take advantage of the opportunities to further extend its market throughout Europe. It has therefore built up stocks in its branches in Denmark, the Czech Republic and France in order to be able to supply quickly and have a logistic advantage. The branch in the Czech Republic has 100 tons permanently in stock, which means that the company can quickly supply the most common types in the Eastern European region.



## CONSTANT, HIGH QUALITY

Valk Welding is the second largest independent suppliers of solid welding wire in Europe. This means that it can impose high requirements on the manufacture of welding wire, which results in a product with a constant, high quality. This has meant, for example, that it has been able to narrow down bandwidth for the various components, so that it is now the narrowest in the market. It also guarantees that the welding wire in its drums is completely torsion free when it is unwound. In short, it supplies a quality product for small-scale and bulk consumers, which is inspected and monitored in accordance with ISO 9001.

## CERTIFIED

All Valk Welding welding wires are accredited by reputed bodies such as TÜV, Lloyd's Register of Shipping, Deutsche Bundes Bahn (DB), Bureau Veritas, Germanischer Lloyd, and it has been provided with CE marking.



## WIRE GUIDE WIRE FEEDER TRANSPORTS WELDING WIRE OVER LONG DISTANCE

Valk Welding supplies wire-feeding systems of Wire Wizard, the system most widely used for wire transport, specifically for wire transport for automated production. These systems, represented by Valk Welding in Europe, Russia, the Middle East and Africa, help to prevent disturbance caused by wire transport in the automation process.

The manufacturer is constantly developing new products in order to further optimize the robot automation process. The innovative Wire Guide Module is a new product. It uses a number of layered rollers, which makes it possible to guide welding wire

through bends with hardly any friction. This means that welding wire can be distributed to a welding robot over a length of 30 metres or more, without any transport problems occurring.

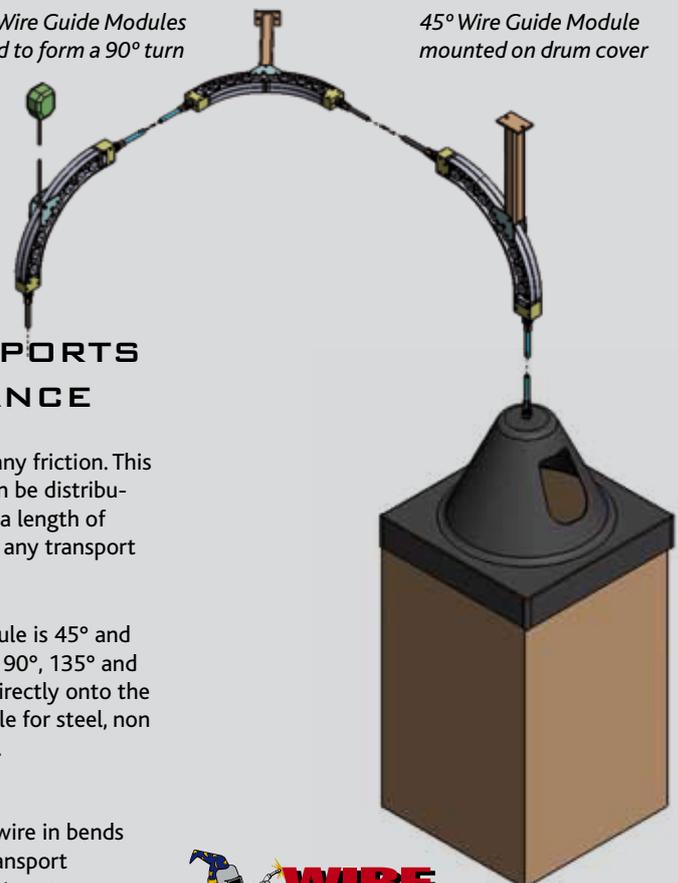
A standard Wire Guide Module is 45° and can be adjusted to bends of 90°, 135° and 180°. The module is fitted directly onto the drum's cone, and it is suitable for steel, non ferrous and aluminium wire.

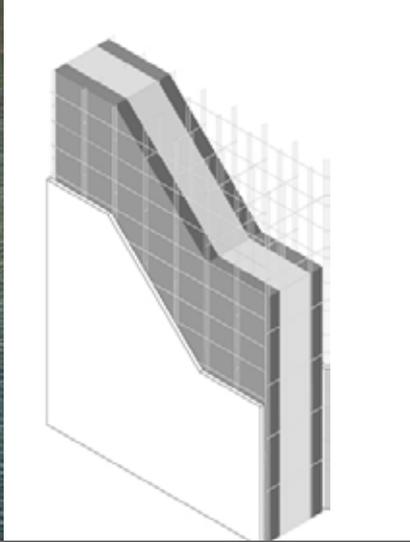
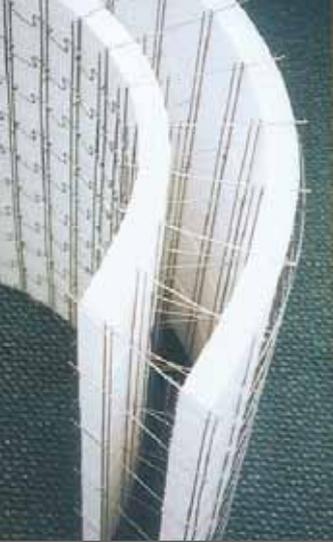
### Advantages

- Eliminates friction on the wire in bends and corners during wire transport
- Bridges distances of 30 metres or more
- Extends the cable's life
- Considerably cheaper than alternative methods

Two 45° Wire Guide Modules  
combined to form a 90° turn

45° Wire Guide Module  
mounted on drum cover





## SISMO USES IDEAL RESISTANCE WELDING MACHINES FOR UNIQUE BUILDING SYSTEM

Sismo, the Belgian manufacturer of building systems, has placed an order with Valk Welding for the supply of 3 GAO 512 Ideal resistance welding machine. It will use the machine for the production of two-dimensional, galvanized steel wire frames.

The basic structure of the SISMO® building system is a three-dimensional module, the SISMO® module. This consists of a galvanized steel wire frame. Fill panels are fitted on the outer sides. These panels make the frame into a closed construction, which is filled with structure material (concrete). The steel wires also act as reinforcement and anchoring for the finishing material. Sismo will use the Ideal GAO 512 resistance welding machines to increase the capacity and production speed in its production

branch in Kalken-Laarne, Belgium. This branch can produce two-dimensional frames of up to 1.2 m wide and 6 m long, using wire of 2-4 mm ø. Long wire and cross wire are welded crosswise with electrodes, on the basis of alternating current.

The system will be installed in mid September.

[www.ideal-werk.com](http://www.ideal-werk.com)  
[www.sismo.eu](http://www.sismo.eu)

## ROBOT SALES BREAK NEW RECORDS



More than 115,000 robots for industrial applications were sold all over the world over the past year. According to IFR, the International Federation of Robotics, it is expected that sales will exceed that number by 10 to 15% this year. Although this is due mainly to the demand for automation systems in China, the total of 30,000 robots sold in Europe in 2010 is also quite remarkable. This shows that the market is catching up, after the past crisis years.

The welding sector also shows a significant rise in the demand for robot automation. In the first half of 2011, Valk Welding received a record number of orders for robots. According to Remco H. Valk, CEO of Valk Welding, this is partly the consequence of the industry

catching up after the years when companies had to tighten their belt. It is also partly due to the extra demand from countries where Valk Welding has intensified its sales over the past couple of years. It is currently continuing to expand its market share in Germany and

France in particular.

While in previous years it largely supplied welding robots outside the Benelux countries to Dutch and Belgian multinationals, it now mainly supplies to local customers that also want to use a Valk Welding robot.

## SUPPLY OF ROBOTS BACK TO NORMAL QUICKLY AFTER TSUNAMI

The tsunami which completely wiped out part of the Japanese northeast coast at the beginning of March not only caused many casualties and widespread destruction, but it also had consequences for industrial production in that part of the country. Some companies that were established in that region and supplied parts and components to large OEMs in sectors such as the automotive industry and machine construction were partly or completely wiped out by the mud slide. A number of large manufacturers, including Sony and

Toyota, were forced to halt parts of their production. Panasonic Welding Systems, the manufacturer of Panasonic welding robots, was also affected, and due to an abrupt interruption in the supply of parts it could only supply part of its production for a while.

Like many other Japanese companies, Panasonic Welding Systems hired a number of former members of staff to deal with the logistic disarray. This meant that the delay could be limited to 10 days. After that,

production could be started up again. In addition to the 40 robots it had already ordered, Valk Welding ordered another 35 to prevent any delay in the delivery times. This year Valk Welding will deliver 110 to 120 robotic systems.

At the official celebration of its 50th anniversary, Valk Welding expressed its sympathy to the victims of the tsunami, and communicated this to its Japanese colleagues of Panasonic Welding Systems.

# 50 YEARS VALK WELDING WITH SUPPLIERS AND CUSTOMERS

Valk Welding can look back at a successful celebration of its 50th anniversary. In the last week of March, Valk Welding invited its contacts to visit its branch at Staalindustrie-weg. Suppliers, customers and former staff took the opportunity to have a look behind the scenes of robot assembly and consumables distribution.

The official anniversary celebrations started with a suppliers' day, which all national and international suppliers had been invited to attend. In doing so, Valk Welding wished to emphasize that it has built up relationships over many years with most of its suppliers on the basis of mutual cooperation.

Amongst all the manufacturers represented that day, the arrival of the Japanese Panasonic delegation was especially noteworthy. While most Japanese manufacturers would not leave their home country so soon after the tsunami, Koichiro Masai, president of Panasonic Welding Systems, made an exception to this in order to be present at the celebrations. Valk Welding is one of this manufacturer's largest independent customers, and in his speech Masai emphasized the special nature of the relationship between the two companies.



Valk Welding employees celebrate the 50th anniversary

## SUCCESSFUL REPLACEMENT PROGRAM EXTENDED

The Replacement Program that was started by Valk Welding in cooperation with the supplier, Panasonic Welding Systems, two years ago, will be extended. The exchange program was originally intended to take back old Panasonic welding robots, but it was received so successfully that the Replacement Program was expanded to robots from other manufacturers. This has led to replacement of Cloos, ABB, Yaskawa-Motoman, Fanuc, OTC, IGM and Kuka robots. The Replacement Program enables companies to replace their ageing welding robots with a welding robot of the latest TAWERS G3 generation under extremely favourable terms and conditions.



Taking back the robots forms part of an exchange program, where the control units are dismantled by a specialist company in order to ensure that electronic components are discharged in an environmentally aware manner. This program links in with Panasonic's "eco-ideas" program.



## VALK WELDING FORUM ACTIVE

Last spring, Valk Welding set up a forum where customers can exchange experiences with each other and put questions to other welding robot users and Valk Welding staff. The forum, which can be accessed free of charge by Valk Welding customers after registration, has already been visited by many

customers.

A separate forum has now been set up for the DTPS programming system; here DTPS users can ask each other questions and discuss experiences. This forum can only be accessed with a login code.

## SAVING ENERGY WITH AUTO SHUTDOWN FEATURE FOR WELDING ROBOTS

Reducing energy consumption has been a topical issue in industry for some time, not only from an environmental perspective, but also because companies wish to decrease the costs for the ever higher energy tariffs. Machines and systems that are switched on throughout the day in particular use up a lot of power. Panasonic has set itself the target to reduce CO<sub>2</sub> emissions in all its production facilities, and also to reduce the energy consumed by its products.

On the basis of the same vision, Valk Welding has therefore developed an automatic shutdown system for its welding robots. That system is now available as an auto shutdown feature on the Panasonic Tawers laser robots. This feature will automatically



switch off the robot (incl. the water-cooling and other peripheral components) when it has not been in production for an x number of minutes. That period can be adjusted. The new auto shutdown feature saves a considerable amount of energy, in particular in systems with unplanned periods of inactivity. The feature has now been installed at a number of Valk Welding's Dutch customers. Interested? Send an inquiry to [info@valkwelding.com](mailto:info@valkwelding.com), stating "auto shutdown".

## EXHIBITIONS AND EVENTS

### WELDING WEEK 2011

Antwerpen, Belgium

19 - 21 Oktober 2011

### METAVAK 2011

Gorinchem, Netherlands

8 - 10 November 2011

### VALK WELDING DTPS USERSCLUB

Alblasserdam, Netherlands

23 November 2011

### TECHNI-SHOW 2012

Utrecht, Netherlands

13 - 16 March 2012

### INDUSTRIE PARIS

Paris, France

26 - 30 March 2012

## VIDEO ARCHIVE

Video clips of current robot project are available at [www.valkwelding.com/videos](http://www.valkwelding.com/videos)

## COLOPHON

'Valk Mailing' is a twice-yearly publication of Valk Welding B.V. and is sent free to all business relations. If you want to receive this publication in the future, please send an email to [info@valkwelding.com](mailto:info@valkwelding.com)

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