

HWAH WELD TIMES

Newsletter for friends and business partners of Harms & Wende GmbH & Co. KG Hamburg (Germany)

Editorial

Dear reader,

Since ten years Harms & Wende releases a quarterly newsletter to their customers, agents and friends. This letter was always written in German language so far, but we get more and more requests from our foreign customers also to participate the news from Harms & Wende.

Taking the 10 years birthday as opportunity as well as the upcoming trade fair Euroblech in Hannover (Germany) from October 21st to 25th, we decided to release an English version of the „Schweißzeit“. We decided to call the english version „Weld times“.

In this letter we do not only want to inform you about news from our house, rather than also giving customers the possibility to publish articles about their own applications. We hereby want to encourage our users to send us material they want to publish in the next issues.

We also include material in this newsletter, new applications, new products in the world of Harms & Wende. Our focus is not only to invent new functions to make better welds as well as cost reduction for customers benefit.

My name is Jörg Eggers and I am responsible for the international sales here at Harms & Wende. It is my pleasure to write this issue for you and hope that you enjoy reading it.



Jörg Eggers

GeniusMFI - the new art of welding

Since many years customers use medium frequency systems from Harms & Wende.

The first system has been released about 15 years ago and thousands of systems have been installed since then. GeniusMFI is the latest generation of our inverter series.

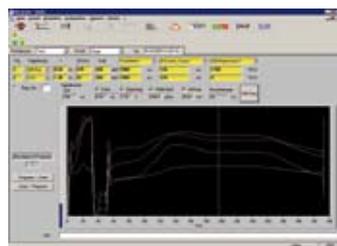
We developed a brand new hardware with new control panel. The control panel is designed as rack what you know from a PC or at PLC systems. Up to five boards can be inserted there which gives an excellent range of possibilities and many applications. GeniusMFI offers unique features for demanding applications like in automotive or industrial applications.

GeniusMFI coexists with other inverter lines at Harms & Wende like our well known HWI inverter series. It is rather an extension to our product lines. By default the inverter offers up to 512 weld schedules or optional up to 512 IQR schedules. IQR is Harms & Wende's adaptive welding package to compensate fluctuations in the weld process. The number of weld schedules used can be reduced dramatically. This saves commissioning



time as well as maintenance time. All this reduces investment by simultaneously higher quality of your products. Programming of GeniusMFI is done using XPegasus. Our programming software appears in a new design and offers more possibilities ever. See XPegasus at the Hannover Euroblech
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IQR - Intelligence in welding brought to your spot



Pegasus Programming Interface

Since a couple of years adaptive weld timers are out on the market. Harms & Wende's IQR system is the

most proven tool in automated and manual production lines. The system foots on a tool box which selects different tools depending on the situation during the weld process. The user just gets the result while IQR does the job to archive perfect spots.

Our IQR takes the resistance from the weld gun and uses this as leading parameter for sensing the weld process. The user can see the reaction in the graphical window in the user interface

Pegasus or XPegasus. In thousands of installations world wide IQR has shown its reliability in body in white lines, T1 suppliers, white ware makers and other applications.

IQR has been designed for spot welding operations, automatically compensates fluctuations in the weld process, say weld time. How it works in detail or see it in real, please get in touch with us or your local Harms & Wende representative. •

Inverter HWI 2000 EVA and Profil IQ - weld almost everything

Many of our users know the wide range of inverters which allow to weld almost everything possible. They take advantage of the different models to do their welds reliable.

In this issue we want to highlight two models which became big sellers the recent years and are used to customers satisfaction. The models are the HWI 2800 EVA and HWI 2800 Profil IQ.



HWI 2800 EVA inverter series

This series of inverters is used in large quantities by T1 suppliers, automotive companies, white ware manufacturers (i. e. washing machines) as well as many other applications. Customers take advantage of the PC based user Interface Pegasus for quick programming, coping and monitoring

of their production. The inverters are available with a power range from 400 to 2400 A, with 24 V interface or field bus systems. It is very easy to integrate in larger systems in a plant. If more power as 2400 A is required, Harms & Wende offers master-slave systems. Here inverters are linked in a sequence to multiply the power of the secondary. In conjunction with MFDC transformers from the HWT series systems with very high power can be built. Systems with maximum welding current of 200 KA are out in the field.

HWI 2800 Profil IQ inverter series

The HWI 2800 Profil IQ inverter series is very much likely the EVA series as shown above. But as we use to say the inner values count. This inverter series is dedicated for advanced

projection welding operations like complex ring projections on high strength material or similar. This is made possible by functions capsulated in profiles. This allows possibilities



HWS 2102 Profil IQ Panel

which are not possible with other inverters. The image above shows the user panel for programming the inverter. As the EVA series the Profil IQ is also available in Master-Slave system when it concerns large joints where one inverter is no longer sufficient. Almost any car in Europe has at least one part which has been treated by our Profil IQ inverter. •

GeniusMFI

Continued from page 1

fair in October or contact your local representative.

GeniusMFI offers also the possibility to run PQS^{weld} on the same inverter. Do you wish to monitor the voltage in milliseconds in conjunction with the current? PQS^{weld} extends the inverter by distinctive quality assurance functions. It is by far more as a statistical process control (SPC), rather than are SPC is a subset in PQS^{weld}.

PQS^{weld} automatically assures users specific weld process by making in-line data monitoring and analysis in real-time. The user is informed about if there should be a change in the weld process.

Users can by checking the process curves identify the reason and maintain the weld system quickly. It is very important to know that 100% of the spots are monitored, analysed and saved.

GeniusMFI with PQS^{weld} in board is used at OEM automotive projects in Germany. •

Splatter free seam welding with Ratia 43

Did you also face the problem, that you fight with splatter at the begin or end of a seam weld?

At these moment of the weld we face special conditions, where the heat and current flow differs from the rest of the seam. Harms & Wende has implemented a function in its Ratia 43 weld timer, where splatter can be avoided easily.

This function is used out in the field at a premium maker of washing machines and is used thousands of times every day. Here no splatter is allowed since the clothes are damaged otherwise.

Our Ratia 43 is a flexible to use weld timer for stand-alone machines for seam, spot as well as for projection welding. AC or three phase DC welding - both options are available. 128 weld schedules offer the user many possibilities to use the timer. The Ratia 43 is also used with long time welding up to 999 periods for soldering copper parts. Here the Ratia offers also special functions for quality assurance of the actual weld process.



Ratia 43

Ratias menu system is available in different languages like English, French and Italian. This makes the Ratia 43 suitable for customers who have plants in different countries as standard unit. Same hardware, same functions, but local language for ease-of-use.

As powerful complement Harms & Wende offers X^Pegasus DSR data backup and restore software. The software allows to save either the weld schedules and / or the module file on a PC for backup purposes. Users with plants in different countries can send the files by mail and upload



X^Pegasus DSR

these files to the timer installed there. This assures that proven parameters and settings are used company wide. Programming errors are avoided. Forget the paperwork and manual input of parameters. •

News from different countries ...

Hyundai Genesis (Republic of South Korea)



... welded with Harms & Wende IQR and CCR inverters. Harms & Wende is proud to announce that the newly released car Genesis from the Korean car maker Hyundai is made using Harms & Wende technology. The car is a new step for Hyundai to compete with premium brands. The core structure is welded with HWI 28XX inverter series. Many other systems also have been supplied from Europe. The Genesis is sold in Korea and the US market at this time.

Our Korean partner MDT located in Ulsan was a key in this business and works with great effort against tough competition. MDT has not only worked on the sales as well as on the programming and other support to Hyundai. To learn more about MDT, please visit their website „www.mdtkorea.net“.

MDT did also made great success in Korea the last years and many products are welded with Harms & Wende technology.



Hyundai Genesis

With respect to service MDT also does services like parameter finding and repairs directly in Korea.

To learn more about the Genesis please visit www.hyundaignesis.com.

Small welding lexicon

In the German original we have traditionally a welding lexicon. This tradition we keep by also in English version of our weld times.

Once published we will introduce the texts on our web site www.harms-wende.de

Issue 1: Welding according DIN 1910

„Welding is joining of material using heat and/or force with or without welding filler“. Heat for the weld is generated by current flow and the electrical resistance of the joining zone. The heat development in the joining zone bases on the relation between weld current, resistance and weld time according to Joules law:

$$Q = I^2 \times R \times t$$

Ralf Bothfeld

Seat frames for Ford Motor Company welded with IQR (USA)



Seat frames are a quite important structure of a car. Everybody uses it every day but it is not so often thought about how important it is in case of a crash. The frames for the actual F-Truck series and other Ford vehicles are equipped with IQR welded seat frames and quality assured and documented by PQS^{weld}.

The two machines produce a frame every 9.2 seconds which is pretty fast since the machines are manually feeded and unloaded. PQS^{weld} checks every single spot in real time and

drops bad seats in a separate box for rework. The staff working on the machine can focus on to produce the requested quantity of frames only. But they know that seats leaving the factory have good quality.



Ford F-Truck series

It was a requirement from our customer to have 100% documentation

of all spots in real time. Part of the installation program was also to train the maintenance staff in all aspects to assure smooth running of the machine.

Our slogan is to serve the customer in all aspects not only with hardware. Even more important are the smooth factors like service or training. Therefore we have partners worldwide which all are on your disposal to get the best benefit from your installation. •

SNG in the PRC



Our partner SNG located in Beijing and Shanghai is working for Harms & Wende since a couple of years. This shows Harms & Wende's and SNG's interest on long term relations on local markets. SNG made very good progress in establishing applications like at Audi in Chang Chung or BBDC in Beijing. Special functionality of IQR with its well

proven algorithms allows here the user to weld with just one weld schedule per gun. IQR takes on the regular variations between the tips as well as variations resulting from operating the manual gun.

In May 2008 SNG presented Harms & Wende technology on the Welding and Cutting in Beijing. Since SNG exhibited a couple of times a

lot of friends visited the booth. It was good to see the growing number of friends of our products.

As MDT in Korea SNG provides different dedicated services for their customers like programming, commissioning as well as trainings on customers installations.

Please visit SNG's website: <http://www.sng.com.cn/> •

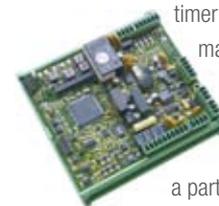
Sinius weld timer - full integration in your machine

Have you ever thought about to build a machine which offers a fully integrated weld timer in the machine? Has your customer asked you ever about to have one user panel for his machine instead of two - machine and welding? Then our Sinus weld

timer is the right unit for you as machine builder. The timer is placed inside the cabinet with the SCR unit and the user interface is just a part of the machine interface.

Sinius is small in size, just 10 x 10 cm (0.3 x 0.3 ft) and fits to almost any place in the cabinet. Connect your PLC i. e. through CAN-OPEN or other field bus systems and make the graphical interface.

For multi spot welders 16 modules can be linked in one chain, as well as more. Thus Sinus is also suitable for large wire welding systems on your PLC. •



HWH is Customers Champion 2008



The certificate

Harms & Wende won the competition „Customers Champion 2008“ which makes us very proud.

This price is an incentive for us to keep customers interest in focus and striver to achieve even better results.

During the ceremony the olympic champion Mr. Michael Gross hold the opening speech and handed over the prices to the winners.

Ralf Bothfeld •



Award ceremony

Environmental protection by program ÖKOPROFIT of the City of Hamburg



The ÖKOPROFIT is financed by the „Freie und Hansestadt Hamburg“ and the joining participants. How much the participants do in this project depends on the size of the company. The idea is that small companies are supported

by the larger ones. Investments are in this way kept on a reasonable level and amortization is short. Participants joining successfully the full program will be honored and get an audience through TV, Radio as well as in print media.

ÖKOPROFIT-Companies of the „Environmentalpartnership Hamburg“ can use this for advertisement purposes. •

Events

Please find below dates for upcoming events in 2008 and 2009:

Euroblech 2008 Hannover (Germany)

As stated above the Euroblech 2008 takes place from October 21st to 25th. Our booth is in hall 13 booth number B70.

This exhibition takes place every second year and is the largest in his scope. We would like to invite you to visit us, see and feel the news. For us the exhibition is like a family meeting with customers and friends. It is a good opportunity also to talk to international partners and customers who are there. Everybody is very welcome.



Welding and Cutting 2009 Essen (Germany)

The world largest show in this sector takes place from September 14st to 19th 2009. Please keep this show in your records and do not forget to book your room on-time.



Official website:
<http://www.schweissenschneiden.de/>

Your Harms & Wende Partner

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