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2015

# Kurtz Ersä Magazine

For Customers and Business Partners of Kurtz Ersä Corporation



## Kurtz Ersä Corporation

Industry 4.0

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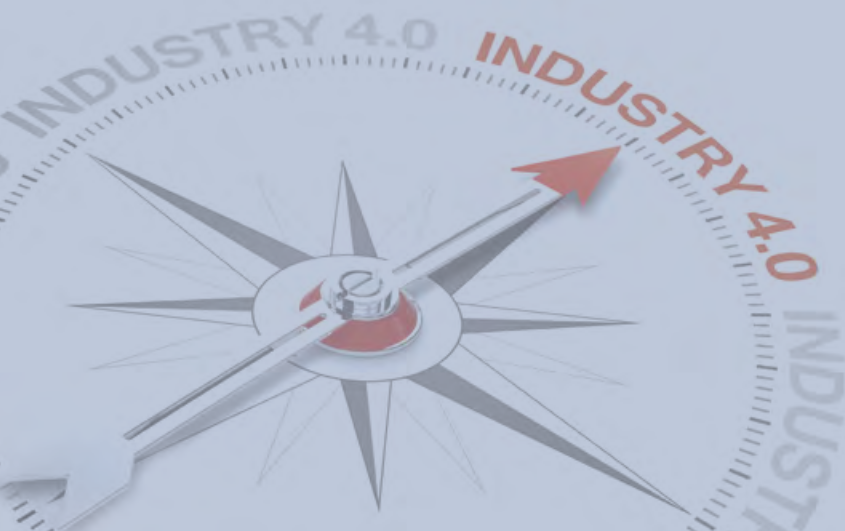
*Rainer Kurtz,  
Chief Executive Officer of Erska GmbH  
and the Kurtz Ersa Corporation*

The Kurtz Ersa Group has been able to establish itself as world market leader in several segments. Achieving this top position was primarily made possible by the remarkable efficiency with which our technologically-leading products are incorporated into our customers' production lines. Here, in addition to enhanced productivity, quality and flexibility are of increasing significance. For quite a while now, this has required particularly smart control systems and evermore networking of individual equipment assemblies.

This is why, as a technological leader, we welcome the increasingly widespread use of the term "Industry 4.0". We are heading towards evermore closely-linked communication, not only within our own infrastructure but also in the cooperation with our customers, suppliers and staff. Our production units have also begun communicating with one another – and our products are being increasingly integrated into a networked factory environment by Kurtz Ersa customers. We are thankful that politicians and trade associations have subsumed these highly-complex processes, all in varying stages of development, under the established term "Industry 4.0". The whole world has begun positioning itself on this topic; discussions with our business partners are becoming evermore specific and, increasingly, are component elements of projects. In this edition of the Kurtz Ersa Magazine, we have tried to give our readers an impression of just where Kurtz Ersa has 4.0 experience. Please ask us about this topic in the context of your projects. Despite all the computer-supported communication, dialogue between us humans will continue to be the key to advancing our technologised world.

On this note, I wish you an enjoyable read. ■

**Good luck! Yours Rainer Kurtz**







# SMART FOUNDRY

The Industry 4.0 Foundry



## Key data Kurtz hand moulding foundry

■ Max. Workpiece dimensions	3,000 mm x 5,000 mm
■ Workpiece weights	150 kg bis 8,000 kg
■ Capacity	<b>20,000 t finished castings per year</b>
■ Materials	EN-GJL-150 to -300 EN-GJS-400 to -800 Solid solution strengthening GJS (high Si alloy) ADI materials DIN EN 1564 compliant





# Moulding a sustainable future

## Kurtz Ersä opens new iron foundry – official start for Industry 4.0 SMART FOUNDRY in Hasloch



*Traditionally opened with ribbon and scissors: the Industry 4.0 SMART FOUNDRY by the Kurtz Ersä Management, the district president of Lower Franconia, the Managing Director of the BDG and the Chairman of the Kurtz Ersä Advisory Board*

With a ceremony held in the production hall, Kurtz Ersä opened its new SMART FOUNDRY in Hasloch on 6 March – just one year and one month after turning the first sod. 150 invited guests, customers, project partners, representatives of important associations, and staff were in attendance as the red ribbon was cut.

With the SMART FOUNDRY, Kurtz Ersä took a strategic decision intended to secure the long-term continuity of the iron foundry and the over 100 jobs. This resulted in investments amounting to twelve million euro for what is probably the world's most modern hand mould foundry – a further milestone in the over 235-year history of the company which has included iron casting among its core competences since 1852. Today, the broadly-based product

range encompasses, among other things, planetary carriers, machine beds and pump housings for well-known customers from such sectors as mechanical engineering, drive engineering, power engineering, vehicle construction, vacuum engineering and wind energy. A study commissioned in advance attests to the necessary potential for the Kurtz product range to utilise the full capacity of the iron foundry with the production of high-quality cast iron parts for German industry in the future as well.

### **Doubled productivity, increased efficiency**

From this, the parties involved in the project developed a creative solution which illustrates the trend to "Industry 4.0" and leads to a doubling of productivity with increased efficiency.



The concept: Exploiting as many existing buildings as possible, SMART FOUNDRY focuses on a completely new material flow and continuous clocked hand moulding in keeping with the Toyota production principle. An SAP-controlled production concept, parcelled production areas and an unmanned, universally mobile transport system result in a flexible process chain in which manual production phases and an automated logistics system can be ideally combined. 1,700 m<sup>2</sup> of renovations from the ground up, and 2,580 m<sup>2</sup> of newly-constructed buildings were necessary. The construction of the hall alone required extensive foundation work with over 2,000 meters of bored pile rammed in far below the water table. "The construction schedule foresaw 1 September for the commencement of production – with a planned two-and-a-half week interrupt of operations. Apparently impossible, but we succeeded – my warmest thanks to all those involved!" says Kurtz Ersä-Chief Rainer Kurtz looking back on a project which, thanks to meticulous planning, was crowned by success.

#### **SMART FOUNDRY – the world's most modern hand mould foundry**

At a ceremony beginning at 1 pm on 6 March, Graziano Sammati, Managing Director of Kurtz

Eisenguss GmbH & Co. KG, greeted numerous representatives from the spheres of politics and business, customers, business partners, project partners, advisory bodies, shareholders and, of course, staff. He emphasised that a task of these extraordinary dimensions could only be accomplished with a powerful project team: "My thanks go to all the external partners – and to our staff who, despite the reconstruction phase and under extremely difficult conditions, displayed such enormous dedication, producing many tonnes of finished castings for our customers!"

Many of the participants had already taken the opportunity in the morning to familiarise themselves with the innovative concept of the SMART FOUNDRY by attending special lectures – even distinguished experts were impressed by the complexity of the new Kurtz iron foundry which, ultimately, makes all the work processes run simply and smoothly. The topics in the highly-frequented HAMMERMUSEUM were "Industry 4.0: SAP-controlled processes in foundries in conjunction with the modular, individual transport system", "New standards in the regeneration of cold resin bonded sand" and "State of the art in suction extraction and heat recovery in foundries." The last lecture on the programme "Burr-free cast iron – how know-

how pays off from day one," was declared a matter for the boardroom by Kurtz Eisenguss Managing Director, Graziano Sammati, who delivered the lecture himself.

Shortly before the traditional ribbon-cutting ceremony, Rainer Kurtz told the assembled guests: "With the SMART FOUNDRY, I am pleased and proud to be able to present you with an Industry 4.0 foundry of 320 meters length and with 23,000 square meters of production area. We have spared no effort to set standards in terms of the SAP-controlled production concept, including continuous clocking in accordance with the Toyota principle, workplace quality, environmental protection and energy recovery. For we are firmly rooted in this location; this is where it all began – and this is where we want to stay. With our new iron foundry, we are completely hardwired to growth!" Following the official ceremony, tours were conducted through the new Kurtz iron foundry where visitor could view the Industry 4.0 foundry from up close. Since then, production is being rapidly powered-up. Good luck, SMART FOUNDRY! ■





**Meticulously planned and jointly implemented – shortly before Easter 2015 the work was done and the new website [www.kurtzera.de](http://www.kurtzera.de) went live!**

For many years the trusty old website was a reliable source of essential information and updates for customers, friends and employees of Kurtz Ersa. But over time our old friend began to feel a little dated, both in its appearance and its functionality. A complete relaunch of the website was needed, even if it would mean investing substantial employee resources.

#### **State of the art – design and function**

The new Kurtz Ersa website has contemporary visual appeal, is even more intuitive to navigate and uses responsive design. This means the website is displayed optimally anywhere – on a 20-inch monitor, laptop, ta-

## Great-looking new website

blet or smartphone, regardless of the operating system in use: Microsoft Windows, Apple OS X or the Android or iOS mobile systems.

Large header images with a slide show function on the landing page and the start pages of the Electronics Production Equipment, Metal Components and Moulding Machines business sections give the user a quick overview and the ability to access their desired content directly. Sensitive content such as price lists, operating and user instructions, data sheets and software can be accessed

as before by registered customers in the protected "Members" area. Current news and activities are displayed in the form of teaser windows alongside the standard content. Newsletters on subjects such as new products, trade fair appearances and training courses are also uploaded via the typo3 CMS, linking visitors to user-friendly landing pages. The new website means that Kurtz Ersa is perfectly equipped for the mobile digital age – and ensures that we will stay permanently up-to-date! ■

## Advisory Board confirmed in office



*Kurtz Ersa Advisory Board (from left to right): Dietmar Straub, Bernhard Kurtz, Tina-Maria Vlantoussi-Kaesler, Hans-Jürgen Thaus (Chairman of the Advisory Board) and Walter Kurtz in front of the historic Eisenhammer.*

The Kurtz Ersa Group considers itself fortunate to be supported by a highly-qualified five-strong Advisory Board made up of distinguished entrepreneurial personalities under the chairmanship of Dipl.-Kfm. and Dipl.-Ing. Hans-Jürgen Thaus, former Deputy Chairman of the Board at Krones AG.

Back in 2014, all the members of the Kurtz Ersa Advisory Board were confirmed for a further three-year period of office. The other members are: Dr. Dietmar Straub, author, coach and former Chairman of the Board of Krauss-Maffei, Dipl.-Wirt.-Ing. Tina-Maria Kaesler-Vlantoussi, Member of the Board of Kaesler Kompressoren, Dipl.-Kfm. Bernhard Kurtz (shareholder) and Dipl.-Ing. Walter Kurtz (shareholder). The management regards this as a positive sign of continuity, in harmony with the positive development of Kurtz Ersa in recent years – all the best for the next three years too! ■





## Reflow Soldering Systems made in Zhuhai – 100th HOTFLOW 3/20 delivered

**When Erska commenced production of the HOTFLOW 3/20 in Zhuhai in October 2013, there was general confidence that this was a success story in the making. And sure enough: The first reactions from customers were extremely positive. And exceeded all expectations!**

The concept of the hybrid machine – German Erska quality components combined with the benefits of local manufacturing in China – exactly met the expectations of major customers. The decisive factor for the speedy success was the implementation of the “just in time” production concept in Zhuhai, adopted almost one-to-one from the Wertheimer Erska headquarters. The SAP-controlled production planning and materials procurement, as well as the close cooperation with local key suppliers, resulted in high productivity from the very beginning.

### 100th HOTFLOW in May 2015

In engineering terms, the HOTFLOW 3/20 reflow system made in Zhuhai contains the full Erska DNA with regard to quality and performance. The capacity of the machinery convinced numerous major customers demanding high quality. Large orders from key accounts Lenovo, Huawei, Vivo or Compal ensued, with the result that the production capacity quickly reached its limits. Very soon, a new production hall was needed, and construction commenced: In July 2014, an additional production area went into operation, expanding production capacity accordingly.

As early as May 2015, the 100th system was delivered. The success experienced to date is due primarily to the outstanding cooperation between the teams in Wertheim and Zhuhai, and to the high motivation and commitment of staff on site. This is reflected in



the daily overtime and extra shifts at the weekends necessary to process all orders on schedule. In order to keep up with the enormous demand anticipated in the future too, a further expansion of the production plant is already being planned. The next target for Zhuhai: significant expansion of capacity and a further reduction of delivery times. ■







## Over 100 distribution partners call on Erska



In June, the soldering specialist Erska held its “International Sales Meeting”. Over 100 international distribution partners and staff from the subsidiaries travelled to Wertheim from all corners of the globe: from Chile to Norway, from Japan to South Africa.

As in previous years, the “ISM” was much more than a mere information event – in addition to the presentation of innovations and further developments, the focus was on hands-on units and open dialogue. Three densely-packed

days were the basis for intensive discussions laying the groundwork for a joint strategy for further growth, taking all future trends and technologies into account. For all the concentration on business, Erska also provided an at-

tractive cultural programme – with a boat trip on the Main, an evening in the beer garden or a visit to the HAMMERMUSEUM which included a forging demonstration. The distribution partners and the entire Erska team went home from the event feeling enthusiastic and invigorated in equal measure. “We are already looking forward to the next meeting in 2016,” says Erska Director of Sales Rainer Krauss. ■

## Erska Webshop USA is “on”

Following an introductory phase, the Erska Webshop has developed very successfully in Europe. We are now also online in the USA – in the land where internet shopping was invented.

In the course of this expansion, we have extended our range by 1,200 articles and 800 product images. At the same time, the design was modernised so that potential customers in the B2C market could move in their familiar online environment. Furthermore, credit card payment with immediate clearance is an absolute must in US business. All the systems for hand soldering, reworking and optic control are available through the webshop while numerous spare parts and wear and



tear parts in the machine area can also be ordered. In Europe, we currently process

20,000 order items through the Webshop. ([www.ersashop.com/us/](http://www.ersashop.com/us/)) ■





*Erska i-CON VARIO 4 – the perfect workplace for soldering:  
4 soldering tools\_ always ready for use!*

#### Erska X-TOOL VARIO Technical highlights:

- 150 Watt heating output, Sensotronic
- fast heating time (< 35 s)
- short reaction time in suction
- varied range of desoldering tips

## Erska X-TOOL VARIO The new measure in desoldering

The new X-TOOL VARIO, presented at the SMT Hybrid Packaging in May, is the new measure in THT desoldering; with a highly efficient 150 Watt heating technique, the new Erska desoldering iron easily copes with even difficult tasks where other tools have had to give up a long time ago.

The perfect combination of heating and desoldering tips ensures efficient heat transmission into the soldering point and fast transportation of the removed solder. The slim shape of heating head and soldering tips also enables desoldering on boards with close arrangements. In the transparent soldering container, the users sees the quantity of solder removed at any time – if needed, the remaining solder can be emptied with a few movements.

With all THT desoldering work, the ergonomically shaped handle of the X-TOOL VARIO is the optimum basis for calm working.

#### Energy-saving and gentle on resources

Like other Erska i-CON soldering tools, the X-TOOL VARIO has a movement sensor with stand-by function for energy-saving work and a long service life of the soldering tips. For the desoldering iron, a large range of desoldering tips is available and they are quickly available and quickly changed thanks to plug-in technology.

The X-TOOL VARIO integrates smoothly into the world of the i-CON VARIO multi-channel soldering and desoldering stations fulfilling maximum claims to professional soldering and desoldering with intuitive operation.

Erska tip for all multi-taskers with a view to soldering and desoldering: combine X-TOOL VARIO with the i-CON VARIO, so that you can achieve top results in the long term as a THT desoldering professional! ■



## Industry 4.0 – The Internet of Things

## A showcase project for Ersa

The intelligent networking of people, machines and industrial processes offers a complete dynamic system. Here at Ersa we use the "Industry 4.0" method to raise our productivity to a new dimension, actively shaping the future of industry.

Industry 4.0 is not bought off-the-peg like a software system or item of machinery, but must be developed in line with the process requirements for each operational and production procedure. Industry 4.0 is not a mass of information, but is based on intelligent linking, incorporating employee expertise, and it requires integrated lean and smart production systems. Industry 4.0 is a living, all-encompassing process, which has to be implemented in line with the individual needs of each company.

**What we have already implemented:**

- ICCS – Order configuration – SAP – Production
- Technical parts lists – Notification of requirements – Procurement
- Staged logistics – Final assembly
- Procurement – Preassembly – Final assembly – Testing/delivery acceptance in the form of an integrated Technical facilities ↔ Sales database

**What this has enabled us to achieve:**

- The production of binding, error-free, individually configured quotes in just a few minutes; quotation drawings, connection and user data, and shipping weight are presented together with the order in PDF format.
- A system used by all sales staff worldwide; in addition, approx. 30 sales partners have a representative's version.
- At the quoting stage we can determine the production costs in minutes or reserve the machinery with the actual planned production capacity.
- Once accepted by the customer, the quote is transferred to our ERP system at the press of a button. The order generates the technical parts list requirement notifications and triggers procurement to meet the deadline.
- There are no errors resulting from incorrect configuration, the throughput times are substantially reduced, and the frozen zone is shortened by more than 50 %. This makes us more flexible in our continuous flow production and enables us to optimise the systems to achieve a 10 % increase in production capacity for the same number of working hours.

- The logistics are incorporated at each stage of the actual continuous flow production process.
- Overall, we have an integrated system from quote/order through the internal sales-order centre-purchasing and logistics, to preassembly, final assembly and testing/delivery acceptance.
- In a further stage, mobile data provision, from customer orders through to service billing, will be introduced in the first quarter of 2016.
- As of now, all our customers' production machines are vertically integrated into a higher-level master computer system. At each stage of production the system knows where each flat pack assembly is located and which process parameters are applicable. Horizontal communication between the individual integrated and linked machines is currently only possible between the immediately preceding and subsequent machines in the series.
- If the capacity within the production line, relating to the provision of production elements, can be adjusted in real time (e.g. parts have not arrived due to delayed customs clearance for assemblies), individual machine elements can automatically be switched on the fly to maintenance mode, as the whole system can run on a lower production capacity.

Industry 4.0 opens up innumerable possibilities – now it is up to the people to decide what is important and what will be implemented! ■



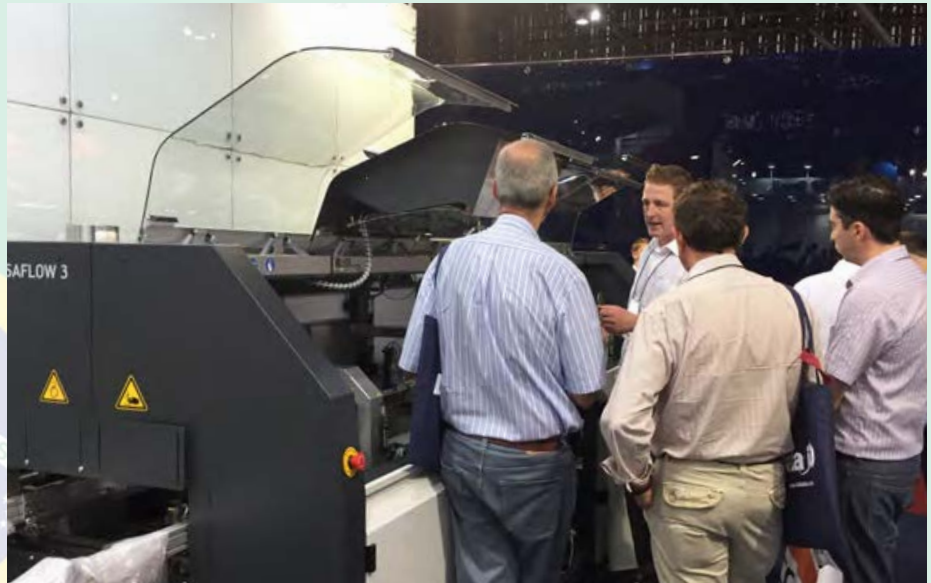


# Huge success for Ersa in São Paulo

The International Electric, Electronic, Energy and Automation Trade Fair (in brief FIEE 2015) in March 2015 in São Paulo was a huge success for Ersa – in terms of both visitor numbers and the very high quality of the contacts.

Even before the exhibition centre opened, visitors were queuing up for admission. The fair, which takes place at two-yearly intervals, had unusual opening hours: 1 p.m. to 9 p.m. This was undoubtedly one of the reasons for the crowds, making it possible to catch up on the latest engineering without having to take a day's leave.

PSP, our representative in Brazil, with Managing Director Euclides Piedade, once again organised an outstanding fair presentation. One absolute visitor magnet was the selective soldering machine VERSAFLOW 3/45,



which was demonstrated almost non-stop – small wonder as the VERSAFLOW is the most frequently-sold product series in Brazil. The

Brazilian electronics market is expanding rapidly, meaning outstanding sales opportunities for the entire Ersa product portfolio! ■

## Ersa Roadshow 2015 Le Tour de France

On 15 June, Ersa started its Tour de France 2015. A train of people and machines got on the road to show the customers on site the latest machine trends and features.

Rennes in the north-west and Valence in the south had been planned. In Rennes, the machines were positioned in the light-flooded entrance area of the "Campus de Ker Lann" technical university. On Tuesday morning, Sales Manager Ersa France Remy Lutz welcomed the guests before the talks on avoiding and reducing errors in SMT and THT placement started – supported by our partner companies Christian Koenen Schablonentechnik and Interflux Electronics. Ersa Area Sales Manager Tobias van Rossem spoke on selective soldering and its cost benefits for the THT area. The afternoon had live presentations on a selective soldering system VERSAFLOW 3/45, a screen printer VERSAPRINT S1 and on the HR 600 rework system, with a HOTFLOW 3/14 being used as a demonstration object. Successful first destination reached, next stop:

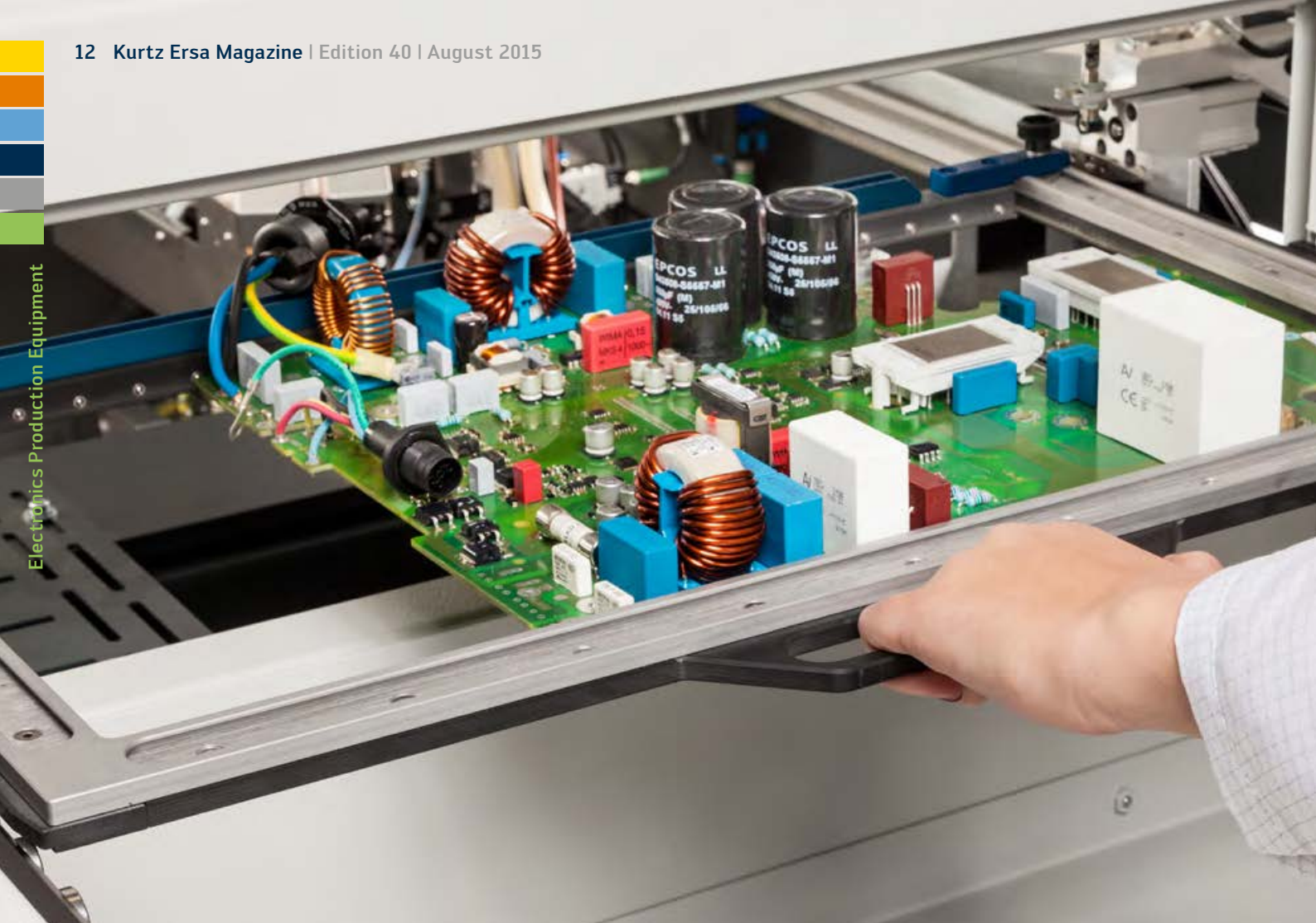


the machine were loaded onto the waiting lorries without a break, and off to Valence, where the build-up of a hall on a trade fair location went speedily. same sequence, great interest here too. Summary of the two days: the visitors took the opportunity of know-how transfer and machine presentations, especially as there are no comparable trade fairs in France



like SMT or Productronica.

One thing is sure: On revient l'année prochaine! ■



## Simple secure selective soldering!

*Got great attention at the SMT 2015: the laminated SMART at the premiere of the Ersä SMARTFLOW.*

Connect, switch on, solder! With the SMARTFLOW 2020, which was presented for the first time at the SMT in Nuremberg, Ersä is extending its selective soldering portfolio, which is a leader all over the world, by a further high-performance system. With an unbeatable price/performance ratio and a utility space of less than 2.5 m<sup>2</sup>, it can be integrated in the best possible way into a production environment with cell production.

In the development of the SMARTFLOW 2020, the requirements were low investments for the customer, a simple and at the same time intuitive operation and a component quality as guaranteed by high-end systems of the VERSAFLW family. In the end, Ersä presented a system which provides the user with a favourably priced entrance into the world of automated selective soldering on the highest technical level. The new "small one" from Ersä is the obvious proof of the fact that favourably priced design and maximum quality requirements are well and truly compatible. Small, but fine, the SMARTFLOW 2020 is the ideal and flexible system for low quantities and/or small productions. The "plug and play" concept puts the users in a position to commission and to operate their SMARTFLOW without any training.







### Tried and tested VERSAFLOW selective soldering technology

The SMARTFLOW 2020 – despite compact dimensions, the universal mask incorporation grabs the maximum component size of 508 x 508 mm (20 x 20") – works with the same tried and tested Erska selective soldering technology of the large VERSAFLOW systems in all process steps and makes no compromises as far as quality and precision are concerned.

The fluxer works with maximum positioning precision and a minimum application quantity. Process security is ensured by features like diffuser spray monitoring or a process camera. Like the VERSAFLOW product family, the SMARTFLOW 2020 has preheating over the entire surface. The lower heating has been equipped with eight sprays, which are switched in groups in order to adapt the performance to energy requirements and component size. The upper heating has been optimally matched to the lower heating – this ensures effective and reproducible through heating, even with extremely demanding components such as multi-layer or heavy mass.

### Ideal start for automated selective soldering

The SMARTFLOW 2020 has been equipped with the completely new development of the ERSAsoft 5 machine software, which is convincing with an user-orientated surface and ultra-modern visualisation. Machine data and information can be provided individualised for the user. A further highlight is the "picture in picture" function, which provides a live picture of the soldering process parallel on the 24" touch monitor in interaction with the process observation camera. With the SMARTFLOW 2020, the user has a modern selective soldering system fulfilling the highest-quality industry standards, which stakes on a tried and tested technique for maximum requirements in fluxing, preheating and soldering – be it in 3-shift operation or seven days a week. The innovative design of the system combined with low maintenance requirements and very good accessibility of the functional modules guarantees a very high availability of the soldering system. Extremely low consumption figures for nitrogen, flux, solder and energy enable economic operation with low operating costs. A modern control tech-

nology permits simple operation, interlinking of the system in MES/ERP architectures, offline programming and the possibility of remote maintenance. Equipped with all these benefits, the SMARTFLOW 2020 is a secure investment in the future of electronic production – also yours! Our small compact machine provides quality like a large one. As you can expect from the market leader Erska with more than 1,500 selective soldering systems installed all over the world! ■



Attractive product video: SMARTFLOW 2020.



Erska  
SMARTFLOW 2020 –  
compact without compromises!



video clip



EPP contribution  
(in German)

### Technical data

- 3-axis positioning system
- Circuit board sizes up to a max. of 508 x 508 mm
- Precision spray flux system
- Soldering module with low-maintenance electromagnetic soldering pump
- ERSAsoft 5 operating software
- Process visualisation incl. soldering protocols, process data logger, monitoring function, maintenance and fault report display
- Dimensions (in mm):  
1,748 (length) x 1,454 (width) x 1,523 (height)
- Weight: 900 kg (1,984 lbs)



## Ersa in reproduction medicine

**Away from the customary applications, the Ersa CHIP TOOL desoldering tweezers are now being used successfully in a completely different area – in reproduction medicine.**

Under the name of "heat sealer", the firm of MTG Medical Technology Vertriebs GmbH sells a DIGITAL 2000 A soldering station with CHIP TOOL and specifically adapted desoldering tips. The customers for the company from Bruckberg near Landshut: hospitals and surgeries active in human reproduction medicine. The device is used every day in a number of laboratories. Amongst other things in this specialist area of medicine, egg cells are taken from patients who have not yet been able to have children. After the subsequent in vitro insemination, cells can also be frozen, so that they can be used in a later cycle,

without the patient having to go through the whole stimulation once more.

The cells are frozen in small "KryoStraws" – which look like small drinking straws and are manufactured from an elastic plastic material. The straws are filled with medium and the cells, are closed at one end with a steel ball, welded at the other end with the help of the heated tweezers. The "heat sealer" can be used for all customary KryoStraws, the welding temperature is controlled electronically and can be seen on the digital display. The "heat sealer" heats up very quickly and keeps the preset temperature very precisely – as can be expected of an Ersa station. The recommended working temperature is 185 to 190 °C. To weld large-diameter KryoStraws, the Ersa range also contains particularly broad blades. ■



*Ersa DIGITAL 2000 A  
with CHIP TOOL alias  
"heat sealer".*



*Closing a KryoStraw at about 185–190 °C.*



## Ersa mini soldering iron Minor S

# Brilliant app, my dear!

The Minor S is the smallest member of the Ersä product family. The largest market for the mini soldering irons: Turkey, second-largest exporter of gold jewellery. Every year, Ersä dispatches around 1,000 Minor S to the jewellery industry on the Bosphorus.

In a shopping centre in Istanbul, dozens of jewellery makers working behind steel doors produce all kinds of gold jewellery – chains, earrings and rings. The production of a gold ring requires a ceramic mould, which is initially cast as a blank. This involves pouring melted wax into a rubber mould.

### Experience at their fingertips

In order to maximise production efficiency, as many blanks as possible are brought together in a "wax tree". This is where the Minor S comes in – with 5 watt heating power at a maximum temperature of ca. 440 °C. The blanks are set into the wax trunk – the Minor S melts a mini hole in the wax tree, into which the blank gating is inserted and fixed within seconds through solidification. Practiced jewellery makers speed up this process by

blowing on it. This takes a lot of dexterity as the position and spacing of the blanks need to match exactly. If the spaces are too small, breaks result, leading to reworking – if spaces are too large, the unit number is reduced. Above all, the angle has to be right to harmonise with the flow of the liquid metal.

### Hardening at 800 to 900 °C

The casting mould is ready, now comes the glamorous part in the form of gold, silver and so on. The wax trees are moulded in a metal cage and in ceramic. The form is hardened in the kiln at 800 to 900 °C. The wax runs out of the ceramic form, making way for the liquid metal. When the necessary temperature has been reached, the hot mould is clamped into a pressure casting machine. The liquid metal finds its way into the cavities in the ceramic; the pieces of jewellery take shape – in the form of the wax tree, now in precious metal. The parts are released from the gate and pass on to finishing: trimming, buffing, polishing, mounting, engraving – finished. Nice to think that the mini soldering iron Ersä Minor S produces so many treasures. ■



*Besides electronics, the Minor S is also used in watch repair, in the photographic industry, in dental technology and in the manufacture of jewelry.*



## Ersä offer of coaching 2nd half-year

The second half of the year also provides tailor-made offers of training and coaching from Ersä for the qualification of your staff. Invest now in the best possible competitive benefit!

### AVLE Module 1 Specialist, soldering technique: fundamentals and basic THT knowledge

14. bis 16.09.	2015-04
26. bis 28.10.	2015-05
07. bis 09.12.	2015-06

### AVLE Module 2 Specialist, soldering technique: basic SMT knowledge

17. bis 18.09.	2015-10
29. bis 30.10.	2015-11
10. bis 11.12.	2015-12

### AVLE Module 3 Specialist, soldering technique: SMT set-up

28. bis 29.09.	2015-16
04. bis 05.11.	2015-17
14. bis 15.12.	2015-18

### AVLE Module 4 Specialist, soldering technique: Rework

30.09. bis 01.10.	2015-22
02. bis 03.11.	2015-23
16. bis 17.12.	2015-24

### Know-how seminar "Lead-free wave and selective solders with assessment of the soldering spot"

22. bis 23.09.	2015-28
20. bis 21.11.	2015-29

### Know-how seminar "Soldering paste pressure and reflow soldering of high-poled SMT and QFN components"

24. bis 25.09.	2015-32
22. bis 23.10.	2015-33

### Training as a hand-soldering specialist. electronic production, according to guideline DVS 2620 by request

27.08.	2015-41
30.09.	2015-42
29.10.	2015-43
26.11.	2015-44

### Customer-specific technology days in theory and practice by request

All dates, information and registration online (in German)





## Gigantic appearance of the Kurtz foundry machines at GIFA 2015

The world's most important trade fair for foundry engineering took place from 16 to 20 June 2015. With 78,000 GIFA visitors from more than 120 countries, Messe Düsseldorf had a very positive balance. Above all, internationality clearly increased once again and is now 56% of the visitors. Therefore, the GIFA has been able to extend its position as the most important event in this branch.

Under the motto "Kurtz PROefficiency – Expect more! Get more!" Kurtz Gießerei-maschinen presented itself on a 170 m<sup>2</sup> stand and can only confirm the positive balance. The two machines on show were not only the highest ones on the whole site, innumerable interested parties were enthused by a successful appearance at the fair in combination

with numerous customers' reference parts. In this way, the GIFA 2015 became a totally successful event. With the AZ 80 and its claim "1 shot – 2 motor blocks" all the inquisitive people were astonished due to their size alone, with Kurtz additionally showing their skill in special machine construction. Advantages already known such as highly precise pressure control, individual cooling and robust machine design have been combined with the successful implementation of numerous customers' wishes – an impressive example of a solution perfectly tailored to match customers' requirements.

The main attraction was however the KPS 3000/22-12 SKT de-burring press, which was current-carrying and quickly became an attraction for the public and ensured enthusi-

asm with its quickly moved masses. Naturally also technically convincing: the large push/tilt table enables de-burring of large components right down to multiple occupancy. With the improved hydraulics, even higher speeds are achieved. A variety of options and customer-specific adaptations enable tailor-made solutions for maximum profitability.

### ecoMetals trails were inspiring

With the ecoMetals campaign, the fair organiser provided a special platform for the subject of energy efficiency and gentleness on resources, in which we were naturally involved. This was clearly the focus of the visitors' interest. For the users, modern technologies for being gentle on resources and for energy efficiency play an important role in placement



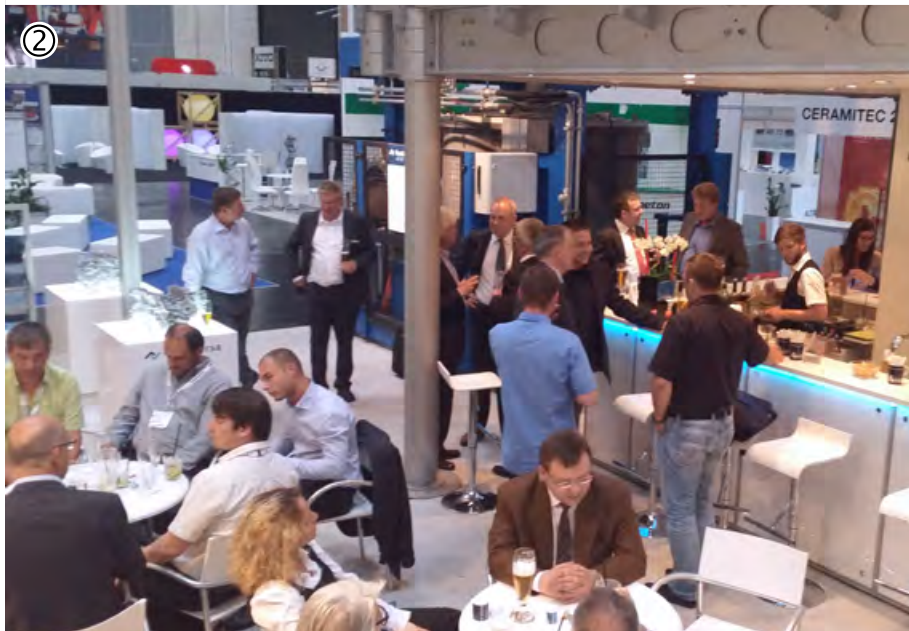
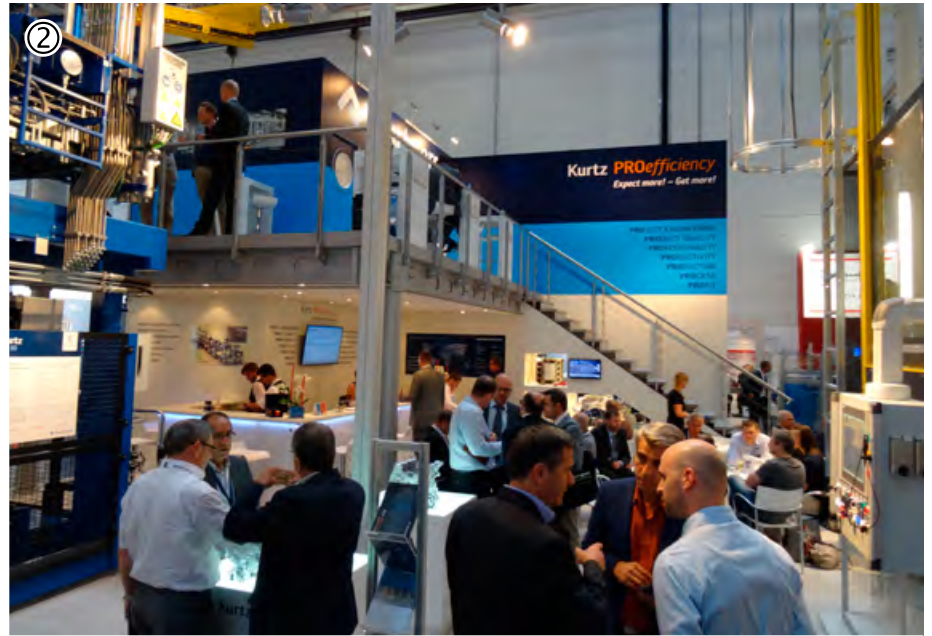
of investments. Companies which excel here were popular locations to visit. The "ecoMetals trails", which led interested visitors to the participants in the campaign, were accordingly well booked. The companies presented their innovative technologies there and thus made direct contact to potential customers from all over the world. Kurtz Gießereimaschinen was convincing here with highly insulated furnace technology, furnace shuttle, quick tool-change system, multiple occu-

pancy and energy-efficient machine hydraulics.

### Position in the foundry world strengthened

As a result of the internationality and the large number of visitors, it was a good job that we had some colleagues from our representations there and interested parties were able to speak directly with fellow-countrymen. The result from five exhausting days at the trade fair

is very good, we had an excellent course of events. Existing customers were bound and the name of Kurtz was strengthened in the foundry world. Many specific projects were brought to us, there is a lot to do. In addition, we are pleased about a definite conclusion for a machine. Our special gratitude is due to the set-up and dismantling team and the entire fair team, all of whom contributed to this remarkable result. ■



- ① Operating live at the Kurtz GIFA fair stand: The powerful KPS 3000 trimming press for cost-effective and future-proof trimming of castings provides a press force of up to 300 tons.
- ② The motto for the fair "Kurtz **PROefficiency**: Expect more! – Get more!" really struck a chord in terms of customers' interest in increased productivity and process efficiency in low-pressure die casting technology.
- ③ The Kurtz AZ 80 low-pressure die casting machine impressed not only with its enormous dimensions of 9 m height and 40 tons weight, but also, and in fact primarily, with its technology: Two crankcases per cycle means double the productivity for the customer.



„GOODYEAR – MADE TO FEEL GOOD.“

## New casting system for Moldplant Luxembourg



As one of the world's largest tyre manufacturers, GOODYEAR has its own mould construction in Luxembourg. From the Grand Duchy, the "Rubber and Tyre" company supplies all European tyre factories with "moulds", which have been produced on a Kurtz low-pressure casting machine for some time now.

Tyre production itself is a complex process, in which many production steps are passed through. For example, a tyre comprises more than ten different rubber mixtures and up to 25 individual component parts. A central process step in tyre manufacture is vulcanisation. In a heating or vulcanisation press, aluminium moulds, in which the tyre is not only given its profile, are used. Under pressure and at temperatures from 165 to 200 °C, the caoutchouc mixture, which has been plastic up to then, becomes elastic rubber. At the same time, the components of the tyre are insolubly connected to one another. During the heating process, the profile is also embossed onto the tread by the vulcanisation mould – for which the tyre profile has been included in the interior as a negative pattern. The heating time for car tyres is nine to 17 minutes – at a pressure

of up to 22 bar, depending on the type of tyre, size and required properties.

### Precise pressure control, best casting results

As a rule, the aluminium moulds are manufactured by casting processes. In this context, the moulded part is cast with the actual tyre negative. As these moulds are not "simple" cast parts with a view to shape and surface quality, GOODYEAR decided on a type AL 13-13 FSC Kurtz low-pressure casting machine. With the known precise pressure control, the flexible cooling concept of air/water mixed circuits and combined with our furnace changing concept for best melt qualities, the best casting results are achieved. The controls make it possible to administer all casting formulations for the variety of differing moulds for all sizes of tyre. Effectivity has also been increased by the new system – and there is still room for the planned increases in quantity. The Kurtz project team is proud of such a renowned customer as GOODYEAR and sincerely thanks them for the very pleasant cooperation. May you always have enough air in your tyres! ■



*The furnace changing system of the Kurtz low-pressure casting machine provides best melt qualities.*



*GOODYEAR produces its "moulds" on a Type AL 13-13 FSC Kurtz low-pressure casting machine, and they are then used in the European tyre factories*



# New A-LINE XXL for EPS construction elements



**Kurtz A-LINE XXL:**  
Economic production of  
large wall elements with  
up to a height of 3 m.

The objective in the development of the new Kurtz machine of the A-LINE XXL type was producing the most flexible system possible with the best energy efficiency doing justice to the various demands in the construction sector.

With the Kurtz A-LINE XXL automatic moulded part machine, large wall elements with and without decoration can economically be produced in one piece. Thanks to the exchange of decoration panels in the mould, various products can be manufactured. Further positive aspects are, amongst others: low personnel requirement, simple automatability and no more cutting waste. In the development of the machine, it was a question of being able to produce as many different panels as possible with only one tool. In this way, the investment costs for the tools drop and long tool-changing times are eliminated. On the basis of this new tool concept, panels for outer façade isolation (with \_or without shiplap edge), under-floor heating, drainage and vacuum isolation panels are produced.

## Economical service of markets

Naturally, panel thicknesses can be adapted. For this, we offer simple possibilities from step-by-step down to fully automatic, infinite adjustment. If the market so demands, the production system can also be extended with an insert system for foaming in webs. In addition, the A-LINE XXL is available with a removal system and the tailor-made solution for labelling, stacking, packaging and palleting.

## New freedoms for construction applications

The machine has a clamping surface of 1,400 x 3,300 mm and is thus very well suited for the production of complete wall elements up to a height of 3 m. In this completely newly developed machine concept, the vapour chambers are, for the first time, no longer a part of the mould unit, but can be adapted individually according to the dimensions of the moulded part and changed just as quickly as they can easily. In this way, there is next to no limit to the freedom in the implementation of construction applications. ■

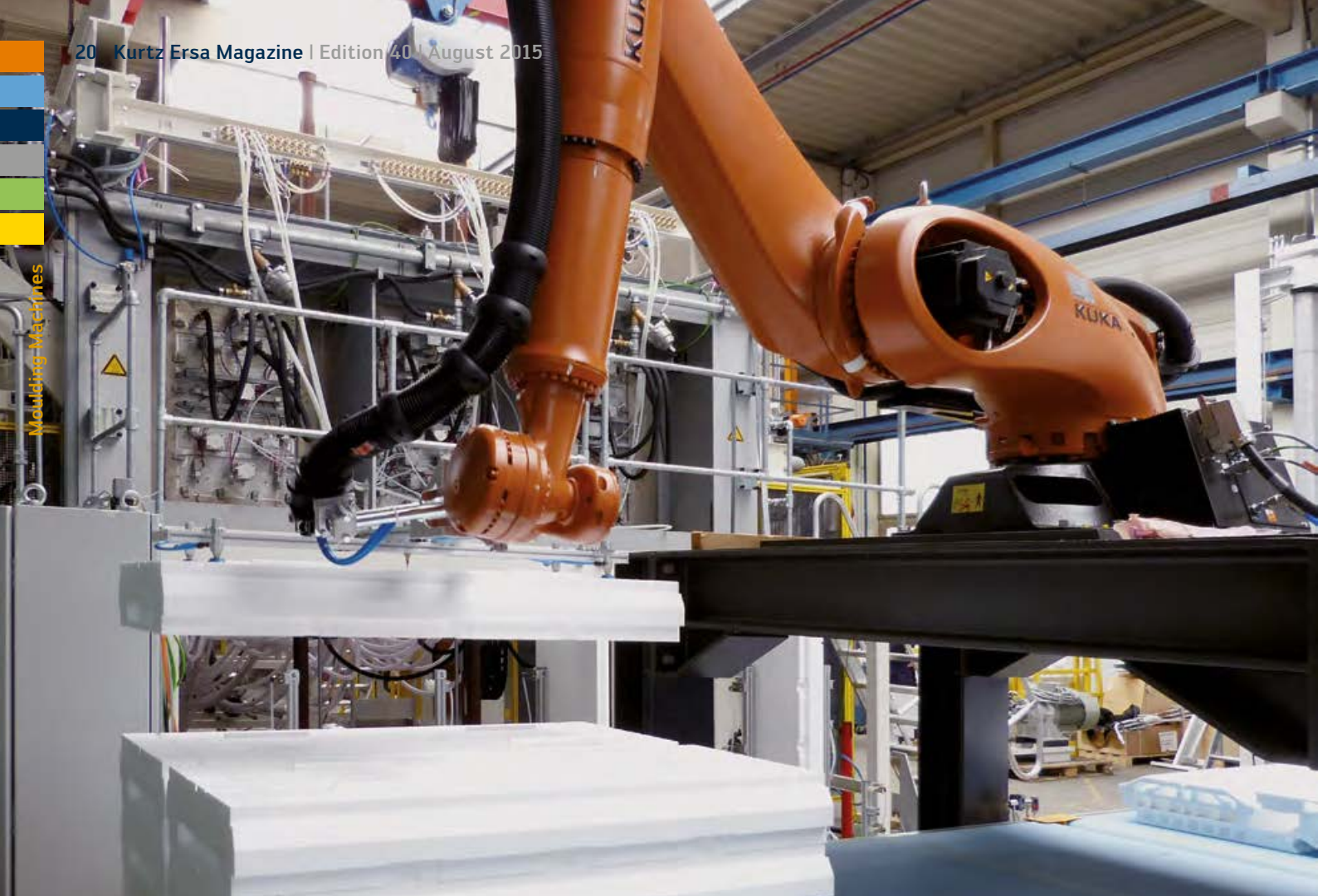
## Possible mould options for EPS panel

- Dimensions:  
3,048 x 2,743 x 2,438 mm
- 3 differing lengths:  
3,048 / 2,743 / 2,438 mm
- With/without shiplap edge
- Shiplap edge adjustable:  
0 / 12.7 / 19 / 25 mm
- Various patterns possible with one tool
- Thickness freely adjustable  
from e.g. 25 to 150 mm
- 2-density panels



**Kurtz type A-LINE XXL**  
highly flexible with top energy efficiency.





## INDUSTRY 4.0 – REALITY AND FUTURE

# Intelligent Systems in Moulding Machines

As in so many other places, the classical areas of industry have also seen changes in the recent years which could hardly have been imagined a short time ago. For machines and systems from the Kurtz company, Industrie 4.0 has become reality in the meantime – even though we are still at the start of a development, the further sequence of which cannot be foreseen in all its details.

Today, it is not only classical production machines producing parts as cost-efficiently and quickly as possible as an insular solution which are in demand. More and more, individual system parts are being interlinked with one another and also with data recording systems. In this way, it is possible to create precise overviews of the current state of production in running production systems. In addition, this provides the possibility of influencing and optimising processes from the outside. With our current de-burring presses, integration into

fully automated production cells with robot supply and removal has become completely normal in the meantime. In addition, the complete production data are secured by connection to customer networks and evaluated for quality tracing. Over and above this, forecasts about a possible failure of elements can be made for upkeep by the recording of the complete disturbance behaviour of the system. Advantage for the customer: in this way, standstill times can be avoided as a precaution.

### Door to the IT world opened

By a change to the Ethernet-based PROFINET field bus, the door to the IT world has been opened in the house. Thus, it is now possible without any problems to implement secure internet-based remote access solutions. This too results in perfect possibilities of getting systems back into production quickly in the event of a disturbance. A further interesting development is the use of intelligent integrated security technology, with which things like

secure pressure build-up on our foundry machines are feasible for the first time. In this way, new features such as permanently increasing pressures become possible – also when accessing the safety area.

### Totally integrated production lines

As a continuation, totally integrated production lines are being produced in the meantime. In this way, we have been able to produce a system for production of insulating panels completely with robot handling and packaging units in a pilot project. In this, the complete interlinking with PROFINET and Safety Integrated on all machines was used for the first time in the world. As early as the projecting phase, it was possible to take changed customers' wishes into due account. Industry 4.0 will certainly take up even more space in Moulding Machines in the future – our objective is always: optimisation of your manufacturing processes! ■



# Kurtz successful at Chinaplas 2015

Automation solutions impress visitors



From 20 to 23 May, Kurtz presented itself with its particle foam machines business division at Chinaplas 2015 in the Chinese city of Guangzhou. The annual fair is considered the most significant fair for the plastics processing industry in Asia. As was to be expected, the fair

stand drew large numbers of visitors and the team from Kurtz Far East had their hands full responding to inquiries. The main focus at the Kurtz stand was on automation – particularly in the context of overall solutions, i.e. completely engineered production systems for processing EPS,

EPP and E-TPU. Kurtz has long been more than a mere machinery supplier; Kurtz is also a carrier of technology offering complete systems to its customers around the globe. By comparison with Europe, the "Middle Kingdom" and the neighbouring states are dis-

playing major growth with all its side effects.

## Saving energy and resources

China's environmental problems are familiar from media reports, but the responsible authorities are taking action. Consequently, many particle foam processing operations are changing over from coal to gas as an energy source for steam generation, to reduce the impact on the environment. A further positive aspect for the EPS industry is the topic of energy saving: China's cities are growing at an extraordinary rate, with an absolute boom in construction – this is the starting point for the insulation of both existing buildings and new structures. Kurtz offers it PANEL FOAMER as well as the classic block moulds for the manufacture of insulating panels. With the solutions on display, Kurtz really struck a note in the sector – many specific inquiries were recorded which now have to be worked through. ■

## Uwe Rothaug on Board of German Engineering Federation's Plastics and Rubber Machinery Association for a further three years



Kurtz GmbH has established itself as world market leader for particle foam processing equipment, undoubtedly also due in part to its involvement in the VDMA-Fachverband "Kunststoff- und Gummimaschinen". The Association numbers 200 companies – with a turnover of € 7 billion, 70 % export rate and a production share of ca. 23 % worldwide. At the General Meeting on 3 July, the VDMA-Fachverband "Kunststoff- und Gummimaschinen" elected its new Board: Ulrich Reifenhäuser, Managing Partner of the Reifenhäuser Group, was voted in as Chairman for the next three years, Kurtz Managing Director Uwe Rothaug was confirmed as a Board Member for a further term of office.

Further members of the newly elected Board are: Michael Baumeister, Brückner Maschinenbau (Siegsdorf), Dr. Karlheinz Bourdon, Krauss Maffei Technologies (Munich), Lutz Busch, Kampf Schneid- und Wickeltechnik (Wiehl),

Sandra Füllsack, Motan Holding (Konstanz), Dr. Peter Neumann, Engel Austria (Schwertberg), Gerold Schley, battenfeld-cincinnati Germany (Bad Oeynhausen), Dr. Peter Schmidt, Troester

(Hanover), Peter Steinbeck, Windmüller & Hölischer (Lengerich), Dr. Olaf Weiland, Kautex Maschinenbau (Bonn) und Rainer Zimmermann, AZO (Osterburken). ■





## Integrating customers into production

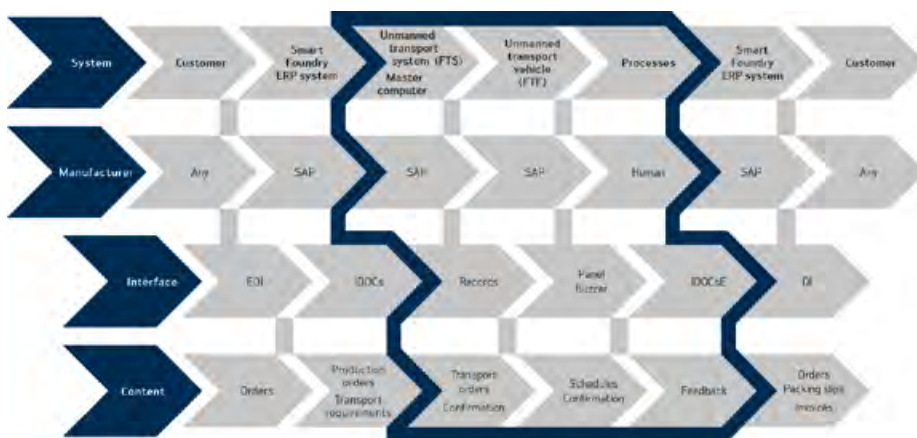
The SMART FOUNDRY is the first Industry 4.0 foundry in the world. Since its official opening in March 2015, it has been operated as an automated hand-operated punch casting machine. Automation on the one hand, manual shaping and casting on the other hand – how do you get a “beat” into the production sequence with a maximum piece weight of eight tons? And what is the customers benefit? Answers with the example ...

A customer orders a cast part from the SMART FOUNDRY, material EN-GJS-400-15, cast iron with spheroidal graphite. The order is forwarded directly to production control, who plan the process with SAP and input it into the CRM system. The following “stations” have to be taken into account: model building, core making, shaping, finishing shop, melting operations, cooling hall, unpacking hall, cleaning room/paint shop, quality assurance and dispatch. The stations are connected via SAP and via a specific logistics system – the heart of the Industry 4.0 foundry.

### SAP system provides the beat

Production control starts planning the production sequence: with the material and cast piece weight to be produced. It knows which moulding boxes can be planned and how much moulding sand is needed. When all the data are in the system, it forwards the “beat” to the stations in production and to the logistics system. In

this way each station knows what has to be done when. For example, at the set time, the moulding shop starts producing the mould for the later cast part. There, the model and the moulding boxes are already available – as is the information about the amount of moulding sand needed for production. This is where the logistics system, four unmanned industrial trucks 3 x 6 m in



*Automated logistics processes – Industry 4.0 live.*



size with a useful load of 80 t, appears for the first time. The vehicles are steered by a system combination of SAP and a further software, which coordinate the production sequence. Unmanned means: no remote control by human hands, no manual intervention. Navigation is done via magnets in the floor of the hall, the propulsion of the vehicles is purely electric.

After the production of the mould has been acknowledged, one of the vehicles moves to the pre-defined collection point, where the finished form has been provided on a mould frame. The frame and the mould are lifted by the vehicle and taken to the finishing shop – which has already been informed that there will be a “delivery”. Information about the casting technique to be used is also already available to the station.

### Core of the Industrie 4.0 foundry

SAP now knows that the mould is being finished in the finishing shop, informs melting operation about the fact that it will be taken to the foundry by a vehicle at time X and states the alloy which is needed. In the example, melting operation starts the production of an EN-GJS-400-15 and provides a sufficient quantity of cast. When the finished mould reaches the foundry, the cast is ready and waiting, the founding can start. After this has also been acknowledged, the system knows that the mould with the metal, which is still fusible, in the interior has to remain in this position for a certain time before it can be collected again. When the time comes, the mould frame and the mould are taken to the cooling hall – in principle, a large car park with chaotic storage. The transport vehicle puts the mould frame onto a free “parking space”, next task. The system knows that the

cast part needs a certain time to cool off and to harden. When this has been done, the system again sends a vehicle in order to take the cast part to the unpacking hall. With the help of cranes and a large “vibratory plate”, it is released from its mould. Now it has to be freed from the superfluous casting, examined and surface treated, before it is sent to dispatch and finally to the customer. In these last sequences in the SMART FOUNDRY as well, the system always exactly knows where the part is. Coordination of the individual production steps with the help of the system, feedback to the system and the practical control of the sequences via an unmanned transport system form the core in the manufacture of cast parts. Customers have been completely integrated into the process and can receive information about the status of production of their components at any time. ■

## SMART FOUNDRY goes exhibition!

Since its official opening in March 2015, the name recognition of the SMART FOUNDRY alias Kurtz Eisenguss GmbH & Co. KG has been rising steadily – among other things with two fair appearances: one in Hanover and one at NEWCAST in Düsseldorf.

In 2015, for the first time in ten years, Kurtz exhibited once again at the Hanover Fair, which takes place every year in April. At that time, the opening of the SMART FOUNDRY was still relatively recent, presenting an ideal opportunity, which simply had to be exploited. And indeed it was. Particularly appropriately, the motto of this year's Hanover Fair was “Industry 4.0”. The Industry 4.0 SMART FOUNDRY presented itself at a central location in Hall 5 with a small but exquisite stand concept. Surrounded by further German and international representatives of the foundry sector, the fair team demonstrated that “Industry 4.0” at Kurtz Eisenguss GmbH & Co. KG is far more than just a buzzword – it is already actually being lived out at the Hasloch site. Visitors, whether customers or colleagues from the sector, were highly interested in the video, photographic and information material explaining exactly what SMART FOUNDRY



stands for and just what it is capable of. In the follow-up, the enthusiastic response could be measured in real terms – in the form of new customer contacts.

### Kurtz Eisenguss at NEWCAST

A similarly enthusiastic response was observed at NEWCAST 2015 in Düsseldorf, the fair for foundries and foundry products. With the same concept as in Hannover, the fair team addressed predominantly international trade visitors and once again met with great interest in the metropolis on the

banks of the Rhine. The resonance following the two fair appearances was thoroughly positive; the analyses and post processing took some time. One thing is already clear today: Kurtz Eisenguss is anxious to present itself in Hanover in the coming year too – NEWCAST itself takes place every four years. And another thing that is equally clear: The SMART FOUNDRY continues to develop further and deserves to be presented to customers and the world in an appropriate environment. So, to coin a phrase, after the fair is before the fair! ■



Our increasingly globalised world is becoming evermore complex – not always easy to retain an overview. Signposts help us to successfully reach goals and treat the environment with respect. To this purpose, MBW Metallbearbeitung Wertheim uses certificates as a basis for its high-quality sheet metal technology products – now also officially with “Energy and Environmental Management” and “Defence Technology”.

## New certificates for sheet metal specialist MBW

# Preserving the world

Preservation of the environment and energy has a long tradition in the Kurtz Ersa Group, be it in the development of energy-saving moulding systems or most recently in energy recovery in the Kurtz SMART FOUNDRY. Energy efficiency is not only a topic in our external dealings but also internally – which is why the company's own resources management is firmly anchored in the Kurtz Ersa management system. It helps protect the environment and also makes a positive impact on cost effectiveness. This aim to operate economically in a sustainable manner, exemplified by central certificates such as Quality Management (ISO 9001) and Occupational Health and Safety Management (OHSAS 18001) also applies at MBW, extended to include special welding technology certificates such as “Railway Approval” and “Welded structures for machinery, apparatus, appliances and rail vehicle construction, sheet metal processing and machining”. For many years now, the MBW Team records the consumption of resources, analyses it according to

various aspects and subjects it to a stringent evaluation at least once annually. When new investments are planned, these are examined closely in advance not only in terms of productivity but also with regard to energy efficiency and environmental acceptability. For example, when selecting the powder spray coating facility, attention was paid to the smallest possible carbon footprint – also taking water treatment and filtering into account. “Our customer orientation and performance capacity, as well as our quality, sustainability and safety are demonstrated by the ongoing endeavour to achieve certification in environmental management (ISO 14001) and energy management (ISO 50001),” says Conrad Kraft, Head of Quality Assurance at MBW.

A logical step as MBW customers and potential customers frequently inquire about the sheet metal specialist's energy and environmental management position. Increasingly, customers make long-term cooperation contingent on

corresponding evidence. “It therefore seemed obvious to have the long-standing environment and energy management system officially certified by an independent, accredited expert,” says MBW Director of Sales Robert Reßl. 7 July, was chosen as the deadline for the certification audit – by then, the entire system, beginning with the waste separation and on to scrap metal and battery utilisation and sustainable material processing was subjected to stringent examination. Wherever we fell short of the requirements, remedial measures were taken – with absolute dedication, in order to achieve a level significantly higher than the standard demanded. Even when the certification processes has been completed, energy and environment management have not come to an end; it is an ongoing process – like our society itself, MBW is also permanently changing, both internally and in its contact with the outside world. This is why we constantly examine our actions and, where necessary, adapt in order to protect our environment permanently.





### Working under the toughest of conditions

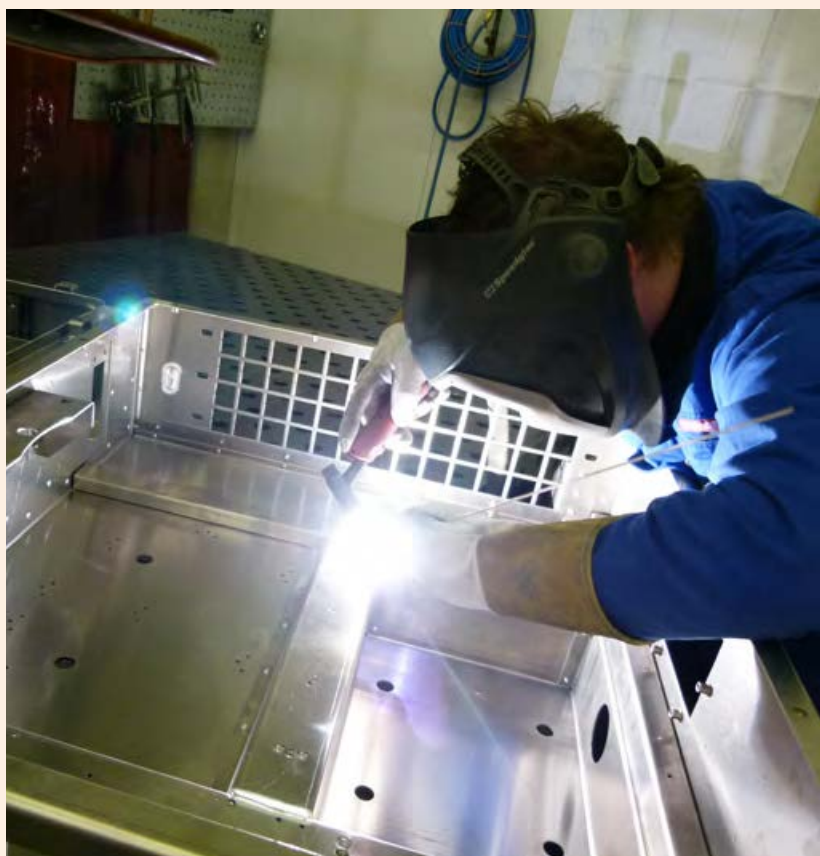
Lots of people can work metal. But when the going gets tough and the welding demands absolute precision, things take on a different complexion. That is why we at MBW are particularly proud of the fact that we have been awarded certification for welding and allied processes pursuant to DIN 2303, Q1 (general requirements) and Q2 (special requirements) – in Germany, only 300 companies can boast this certificate. Therefore MBW Metallbearbeitung Wertheim GmbH meets the production and maintenance requirements for military products which apply for welding, hard soldering and thermal spraying.

An initial specific product with assembly groups for military technology has already entered the implementation phase. The issue is

the reinforcement of a driver's cab of a military vehicle with welded sheets, making it much more robust than a "normal" truck cab, permitting safe deployment even in areas of conflict. "The DIN 2302 welding certification involves numerous stipulations – documentation must show a clear record of who was supervising, who was documenting, who had the specific welding certification and the origin of the material used. In this context we speak of 'traced material'," says MBW Director of Sales Robert Reiß. Follow-up orders on the basis of the DIN 2303 approval are already in the pipeline ... ■



**MBW certification**  
for welding acc. to DIN 2303



### MBW Certificates

- Quality management (ISO 9001:2008)
- Occupational safety management (OHSAS 18001:2007)
- EWF manufacturer (DIN EN 15 085-2:2008)
- Welding certification for rail vehicles and vehicle components (DIN EN 15085-2)
- Schweißzertifikat (DIN EN ISO 3834-2:2006)
- Certificate of manufacturer qualification (DIN 2303)
- Energy management (ISO 50001:2011)
- environmental management (ISO 14001:2004)

### Contact



#### Robert Reiß

Head of Sales MBW  
robert.reissl@kurtzersa.de  
Tel. 09342 9636-12

100 highly qualified employees work at MBW. MBW has a production area of approx. 7,500 m<sup>2</sup> with latest production machinery at their locations in Wertheim and Baiersdorf. How can we increase your competitiveness?



Kurtz Ersä staff member at G7 summit

## Hurrah for the volunteers!

At the beginning of June, Schloss Elmau in Krün, Upper Bavaria, was the venue for the G7 summit. The participants: the seven most significant industrial nations in the western world, represented by, among others, German Chancellor Angela Merkel and US President Barack Obama. In addition to a huge police contingent, a further 1,800 helpers were on duty, most of them volunteers from various aid organisations. Among them was Kurtz Ersä staff member and Bavarian Red Cross (BRK) paramedic Hans-Peter Blum.

Most of the security forces were already in situ almost two weeks before the heads of state actually meet. For that reason, the "Information and Communication Rapid Response Team" of the BRK Local Chapter Main-Spessart were also on duty around the clock for 14 days, working in shifts. This team is mobilised when an increased coordination effort is required. As soon as the paramedical command unit – consisting of Organisational Manager and Senior Emergency Physician – becomes involved, we are automatically deployed as its support group, be it at concerts, sporting events,

demonstrations, searches for missing persons, bomb threats, and traffic accidents or fires. Our duties include helper registration, situation reports, documentation, the organisation of rooms, recording the injured and the management of their evacuation, briefing and coordinating the means of transport. We have a mobile command centre at our disposal, equipped with PCs, radio units, telephones, fax, copier, internet, maps and a meeting room.

### Communication using tap-proof digital radio

During the G7 summit, we were stationed in the Mittenwald Youth Hostel and responsible for catering in operational area 4. A command post with technical equipment, pin boards and flipcharts was set up in the hostel. For the first time, not only the police communicated via tap-proof digital radio, so too did the aid organisations. In our operational area there were seven so-called "refreshment points" with generally two field kitchens keeping the police task forces supplied with warm food and beverages. Food was prepared around the clock, and our duties included supervising staff changeover and organising the swap of used food



**G7 GERMANY**  
2015 | Schloss Elmau



thermophores and kitchen equipment. Five of the refreshment points were within control area S2, an Alpine area, surrounded by a 16 km fence and in parts fairly inaccessible.

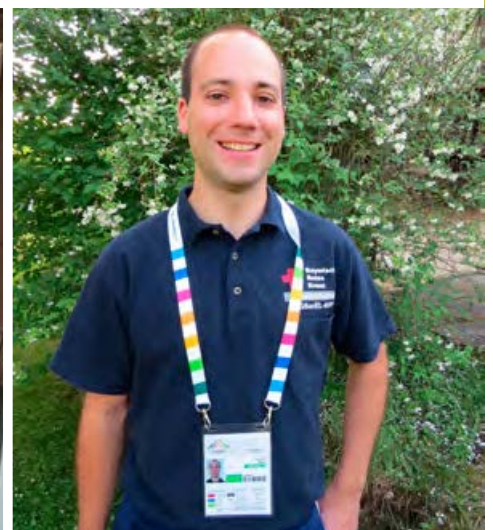
Every individual to be allowed access to the control area had to register with the BKA weeks in advance before receiving accreditation on location. At a BKA checkpoint located at every access, vehicles had to pass through the mobile X-ray unit before being gone over by a sniffer dog. The occupants were subjected to the type of identity checks familiar from air travel. When the checks were successfully completed, a police car was assigned as a pilot, constantly

accompanying the vehicle to and within the control area. Depending on the queues at the checkpoints, it could take up to three hours to pass through. As five of the refreshment points within the fenced-off area had neither electricity nor running water, fresh supplies of diesel for the generators and the filling or removal of the water tanks and toilet units had to be organised. The kitchens were fitted out with sleeping facilities and material for 48 hours in compliance with contingency plans in case access to the security zone was blocked. Overall, we kept around 800 helpers and 4,500 police officers fed every day in our operational area.

### Exhausting, but fulfilling

While the assignment in Elmau was hectic and exhausting, it was also a great experience. Fortunately, almost all the demonstrations around the summit were peaceful. Before too long, I certainly intend returning as a tourist to the Zugspitz region with its magnificent mountain scenery – and will be able to really enjoy my stay this time, without stress and without security forces.

## KURTZ ERSÄ *inside*



### Hans-Peter Blum

works in the SAP Competence Center at Kurtz Ersä; he has been a BRK volunteer since 2006, and worked as a paramedic since 2013.

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### Technology fan? Passionate interest in industrial history?

The story of Kurtz Ersa comes to life in the new HAMMERMUSEUM – let yourself be infected with the enthusiasm for technology that still marks us out in the 21st century. We're looking forward to your visit!

### Kurtz Ersa HAMMERMUSEUM

Eisenhammer 1, 97907 Hasloch  
www.hammer-museum.de

### Opening hours

April–October: Tue.–Sun., 10:00–16:00 h  
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according to the press law  
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