

# 43

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2016

# Kurtz Ersa Magazine

For Customers and Business Partners of Kurtz Ersa Corporation



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## ... and they do exist!



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

Dear Reader of the Kurtz Ersa Magazine!

We are often asked: "Kurtz Ersa, that's such a diversified group. The business segments are so different. Are synergies actually possible?" There is only possible clear and distinct response to this: Yes, they do exist – the synergies at Kurtz Ersa. And we exploit them consistently and very successfully.

For example, there is our management system. The systematics behind it is the same for all business areas. It is complex, but this very complexity makes it necessary for our systems to have clear interfaces and huge flexibility. And despite all the overriding systematics, each area has its own special features, and they of course are taken into account.

And now for a completely different topic: Industry 4.0. For Kurtz Ersa this involves consistent exploitation of the opportunities offered by digitalisation. This means something different for each area, but overall we have developed a broad base of successful, highly-usable processes on this topic.

At Kurtz Ersa we often work together on an interdisciplinary basis. Our benchmark is the greatest possible efficiency and innovation. In order to provide adequate and comprehensive advanced training for our employees, our Hammer Academy offers the associated knowledge. And if further proof of our group-wide synergies is required, we just have to look at our foreign subsidiaries. Our proximity to customers all over the world demands strong and highly-motivated sales engineers as well as the best possible competent service. Both avail of our segment-spanning customer relationship management systems or mobile services.

We could give you further examples of successfully exploited synergies at Kurtz Ersa. You will always be able to read about them in the Kurtz Ersa Magazine, including in this edition. Once again, 2016 was a record year for us. We would like to thank our business partners and our staff for making it so.

We wish you a Happy Christmas and every success, good health and prosperity in the New Year. ■

**Glück auf! Ihr Rainer Kurtz**

*1st Hammer Expert in the Kurtz Ersä Group:  
Andreas Brod from the Corporate IT Department  
with Prof. Wilfried Mödinger from  
Steinbeis University Berlin (left),  
Hammer Academy Provost Verena Bartschat  
and Kurtz Ersä CFO Thomas Mühleck.*



## First professional title awarded by Kurtz Ersä Hammer Academy

In addition to presenting the turnover and order figures, Kurtz Ersä CFO Thomas Mühleck had a very special duty to perform at the monthly information event in September: Andreas Brod from the Corporate IT Department, the first Hammer Expert in the entire company, was to be presented with his graduation diploma. "I am pleased to be able to present the very first Hammer Expert here today. Dear Andreas, congratulations on this very special qualification," said CFO Thomas Mühleck. In her capacity as Provost of the Hammer Academy, Verena Bartschat handed over the graduate's mortar board to Andreas Brod. Prof. Wilfried Mödinger from Steinbeis University in Berlin, who served as an external consultant when the Kurtz Ersä Academy was being launched, and who is a Member of the Academic Council of the Academy, travelled specially to the event. The Hammer Academy, which opened officially at the end of February 2016, was very well received among the staff – to date over 3,000 online applications have been received for the diverse course programme. "Dear Mr. Brod, – I too would like to congratulate you most warmly to your qualification as a Hammer Expert. Together with all future Hammer Expert aspirants you can count yourself lucky to be

able to pursue your studies directly in the company," said Prof. Mödinger in his address. When we hear the terms "academy" or "studies", we think of universities or external institutions which are attended after work, part time or in the evenings – that's not how it works in the Hammer Academy, which today is already firmly established within the Kurtz Ersä Group and offers a range of courses which is constantly being expanded. "The joint decision of the management and the Works Council in favour of the Hammer Academy is an important signal to all staff members because, in these times of global competition, everyone – whether working in production or in administration – has to develop as a bearer of knowledge. In this area, the Hammer Academy makes a vital contribution. Through the digital interconnectivity of the know-how existing in the company, Kurtz Ersä strengthens its competitive position in the market," emphasised Prof. Wilfried Mödinger. With the conferring of the first Hammer Expert qualification, the vision behind the company's own academy becomes evident, showing how Kurtz Ersä is making its workforce fit to compete in the global market. The first Hammer Expert is just a start; many more will follow! ■



*Hammer Expert Andreas Brod,  
Kurtz Ersä Corporate IT Department.*

# BestPers Award 2015 2016



## Attractive employer in times of Industry 4.0

Germany never had more people in employment: in 2016 this figure was over 39 million! That is great – but it makes it increasingly difficult to find skilled staff and talented potential employees, and to bind them to the company long-term. These employees are needed if we are to achieve the planned further growth. The Kurtz Ersä Group therefore presents itself as an attractive employer, with an offer which makes us stand out from competitors. The building blocks are flexible, family-friendly working time models, success premiums, fringe benefits, scope for personal development and an extensive range of training and professional advancement programmes. In this way, the owner-run family company gains new employees and fully exploits the existing potential.

had over 3,000 registrations for upwards of 300 courses and seminars. The company's own platform, officially opened in February 2016, is the place where the knowledge gained in the over 235-year company tradition blends with the current expertise in the global markets. In times of increasing inter-connectedness, employees are needed who identify closely with their company and react to changes in the market flexibly, competently and with a high degree of motivation. They obtain the necessary tools in the HAMMER ACADEMY. A unique offer for the medium-sized company Kurtz Ersä, with around 1,300 staff – and one that deserves to be highlighted. With ads. And at least as important: digitally. Since August 2015, Kurtz Ersä has been represented on the business platforms Xing and kununu. Due to the very good ratings, it was distinguished directly as a TOP COMPANY and OPEN COMPANY – both seals of approval were achieved again

AUSGEZEICHNETER  
AUSBILDUNGSBETRIEB  
AZUBI-GEPRÜFT  
**2016**



### Company's own knowledge platform

Without doubt, one important building block is the HAMMER ACADEMY, which has already

in 2016 on the basis of the very good ratings from employees. In addition to the advertising channels, the central personnel department publishes vacant positions in the Kurtz Ersä Group on Xing – at present, the D-A-CH region numbers eight million members. It has already been possible to gain a number of new employees in this way.

### Award-winning training company

As a training company too, Kurtz Ersä has been extremely active for many years and has been constantly certified as a training company over recent years by the IHK, the Chamber of Industry and Commerce. In 2015 and 2016, Kurtz Ersä was the first company in Bavaria to receive the seal of approval "Outstanding Training Company", based on a survey on their apprenticeship carried out anonymously among the Kurtz Ersä trainees. As a result, Kurtz Ersä's great dedication to vocational training can also be seen outside the company – evident, among other things, in the high ratio of apprentices in the workforce which, for years, has remained above ten percent. In addition, the Kurtz Ersä team in the central personnel department has been able to celebrate being shortlisted for the HR Excellence Award 2016 in the category "Knowledge Management: Learning and Development (SMB)" – the winner had not yet been announced at the time of going to press.

### Best personnel work among medium-sized companies

Last, but not least, in November, Kurtz Ersä received the bi-annual "BestPersAward" in the category Personnel Recruitment for its personnel work as a medium-sized company. To participate in the competition run by the Institute of Management Competence (IMK) at Saarland University, Kurtz Ersä staff completed an extensive questionnaire and provided further information material. In the subsequent video interview, they had to answer critical questions from the jury – in the end, the award went to companies who have been practicing modern personnel work in an exemplary way. "We are proud to be able to call ourselves BestPersAward Winners – it confirms that our hard work has borne fruit and that we have been able to gain the right candidates for Kurtz Ersä. We promise to continue expanding our groundbreaking personnel concept and implementing it in an exemplary fashion!," said Kurtz Ersä Personnel Manager Günther Bartschat. ■

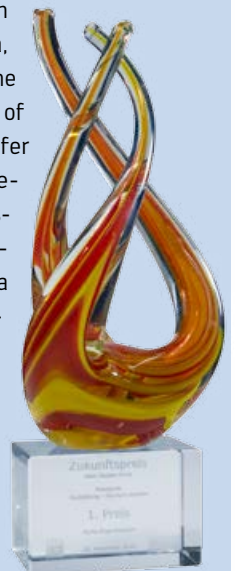


## First place for Kurtz Ersä in the Future Prize

In the 2016 Future Prize of the Business Development Council of the Main-Tauber District, the Kurtz Ersä Group lands in first place! 25 enterprises had applied for the award. From the applications three enterprises were given an award for their work in apprenticeships – three awards with a total of 5,000 Euros in prize money. As the first placed company, Kurtz Ersä receives 3,000 Euro, which is used for purposes of apprenticeships. "We are very pleased about this future prize, which can be ascribed to the commitment of our team of trainers and the Human Resources Central Area," was the emphasis by Kurtz Ersä CEO Rainer Kurtz after the award ceremony.

Every two years, the Business Development Council awards its future prizes to particularly active communes and committed enterprises in the region, the motto for the 2016 competition being "Apprenticeship – careers at home". At the festive award ceremony in Tauberbischofsheim, District Administrator Reinhard Frank made reference to the fact that the demographic development was making it increasingly more difficult to occupy apprenticeships and to secure tomorrow's experts. The objective of the Business Development Council of the Main-Tauber District is therefore to keep young people in the region, he said.

Kurtz Ersä has been doing this very well for years – the apprentices' quota in the company is constantly above 10 percent. The 2016 apprenticeship year started with 38 trainees, a number of future experts never seen before. With exciting professional prospects and attractive social benefits, this family enterprise, which is growing dynamically, succeeds in gaining its young experts for the enterprise and in binding them in the long term. The central communication medium is the career portal on the Kurtz Ersä website, where all vocational topics – such as job offers, apprenticeship and studies – come together. "To find apprentices and to gain them for Kurtz Ersä, we advertise jobs online and in print, make use of social media and offer not only apprenticeships, but also all possible kinds of internships", said Kurtz Ersä Head of Human Resources Günther Bartschat, who, with his entire human resources team, was very pleased about winning the future prize.





## Kurtz Ersä expands its presence in Mexico with the new Demo and Tech Center in Guadalajara

### Kurtz Ersä Demo & Technology Center

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### Kurtz Ersä Mexico, S.A. DE C.V.

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With a new demonstration and technology center in Guadalajara, the Kurtz Ersä Corporation has expanded its presence in Mexico. At the opening ceremony on 17 November, it was all about the planned growth in Mexico. Kurtz Ersä Mexico, S.A. DE C.V. was established in 2013 as a subsidiary for sales and service of soldering systems, particle foam machines and foundry machines. With its main focus on such sectors as the automotive branch and electronics manufacturing, the subsidiary in Mexico was geared from the very beginning to exponential growth, and today has a twelve-member Sales & Service Team. On an area of more than 200 m<sup>2</sup>, Kurtz Ersä Mexico presents now in addition the entire spectrum of Ersä soldering systems to its customers and potential customers at the new Guadalajara location. "Due to the high potential of the Mexican

market and the positive experiences in the last years the opening of our second facility in Mexico is more than legitimated – best thanks to our customers who made this possible," said Kurtz Ersä CEO Rainer Kurtz who especially travelled to the opening ceremony.

During the official ceremony to dedicate the new demonstration and technology center in Mexico's second largest city, regional and international partners and customers seized the opportunity to inspect the new Ersä systems from close quarters. And it was not just a question of looking: the Ersä machines displayed its scope of activities in live demonstration – the principal performers: the HOTFLOW 3/20 reflow soldering system, the VERSAFLOW 3/45 selective soldering system and the HR 600/2 rework system.



The VERSAFLOW 3/45 continues to make a convincing impact in electronics manufacturing as the most-used in-line selective soldering plant with the highest degree of reproduction in the market. The new HR 600/2 is a highly-automated rework system which guarantees a totally reproducible process with the proven closed loop technology. And the HOTFLOW 3/20 offers outstanding heat transfer for different component assemblies with an ideal energy balance. Even before the official opening, technology seminars took place, in which process and application engineers showed new possibilities for the SMT und selective soldering process.

"With the new subsidiary in Guadalajara, we are in a position to act more swiftly on the Mexican market – with competent service from our local, Spanish-speaking colleagues. The central Erska Mexico warehouse will also be located here in Guadalajara – as will the Erska Demo Center and the general distribution," said Kurtz North America Managing Director Albrecht Beck, who will manage the Mexican branch. ■

## Interview with apprentice Felix Firmbach

Kurtz Erska continues to grow – not only when it comes to turnover; staff numbers too are steadily rising. This year alone, 90 skilled workers joined the company, as well as 37 apprentices; 23 former apprentices moved into permanent positions. Every new colleague and every new employee initially passes through the two-day introductory event to familiarise themselves with the various business areas and individual companies. KEM asked trainee IT specialist Felix Firmbach about his first impressions of the company.

**KEM: Hello, who are you?**

**Would you briefly introduce yourself ...**

Felix: I am Felix Firmbach, born in San Francisco in 1997, living in Germany since 2000 – which is where my parents come from. I live in Wertheim and sat my Abitur examination this year at the Friedrich Bonhoeffer Gymnasium. I have been an apprentice IT specialist at Kurtz Erska since 1 September.

**KEM: Had you been familiar with Kurtz Erska before?**

Felix: Of course, Kurtz Erska is among the largest employers in the region. That's why, when I was looking for an apprenticeship place, the company was top of my list – the journey to work is short, the company has developed very positively in recent years and Kurtz Erska has a lot to offer its employees and apprentices.

**KEM: How was your start in the company?**

Felix: It started with two days of orientation, to help us get to know the business

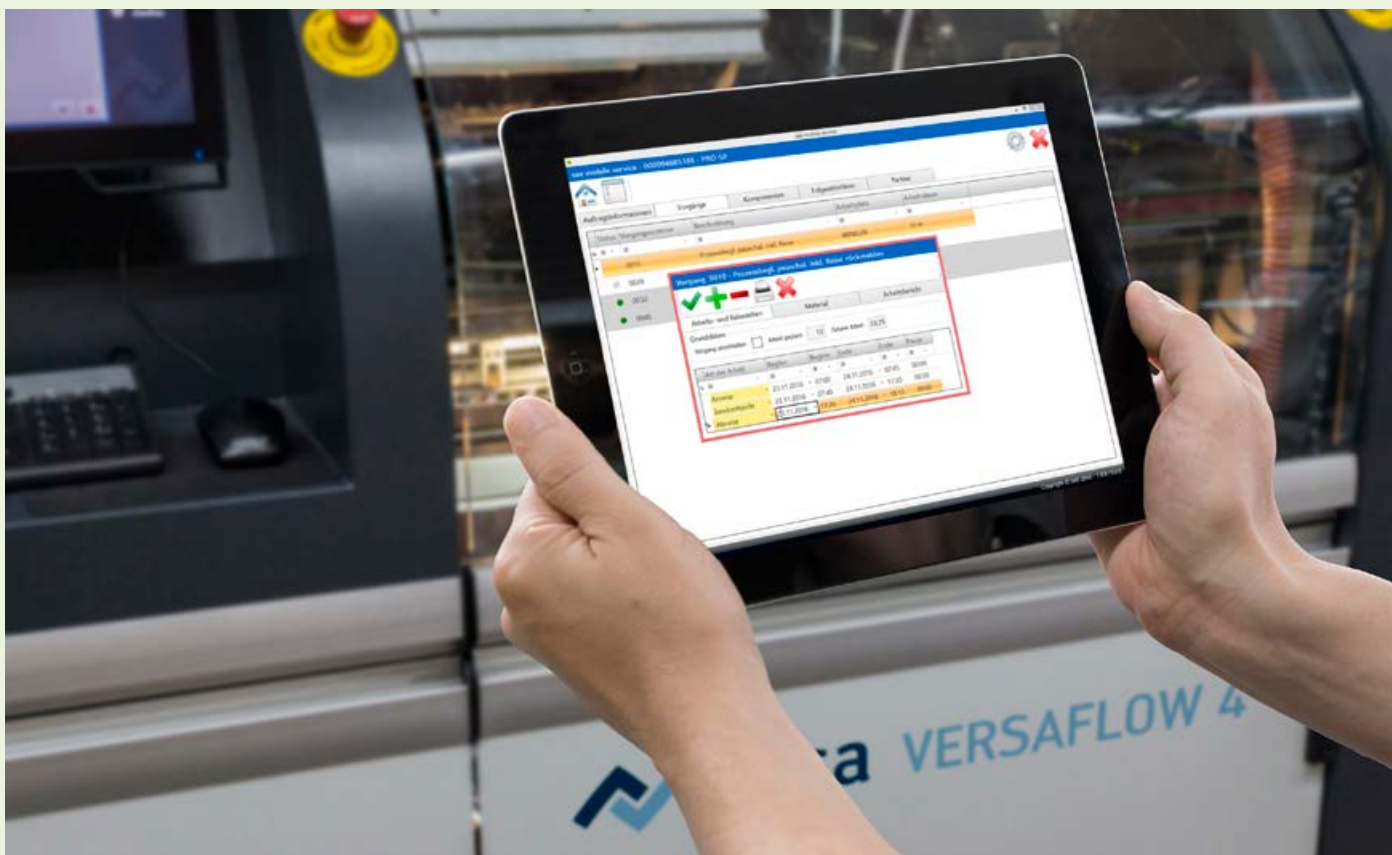
segments. The individual companies – Erska GmbH, Kurtz GmbH and MBW Metallbearbeitung Wertheim GmbH – we visited these directly – another exciting thing was the Kurtz iron foundry and the tour of the historic Iron Hammer, because that's where the roots of the company are. Overall, my introductory phase went on for about two weeks. I was positively surprised at the focussed and structured way things kicked off here.

**KEM: What is your opinion of the company after the first weeks?**

Felix: In terms of the IT, there is a great deal on offer; you can really learn a lot. Although I am an apprentice, I am already working directly on specific projects – such as the visualisation of machinery for the design engineering or the implementation of a project tool. I feel really at home in the IT department and will be availing of the offer at the Hammer Academy shortly!



Felix Firmbach, trainee IT specialist, talking to the KEM editorial department.



## Mobile customer service for the highest machine availability

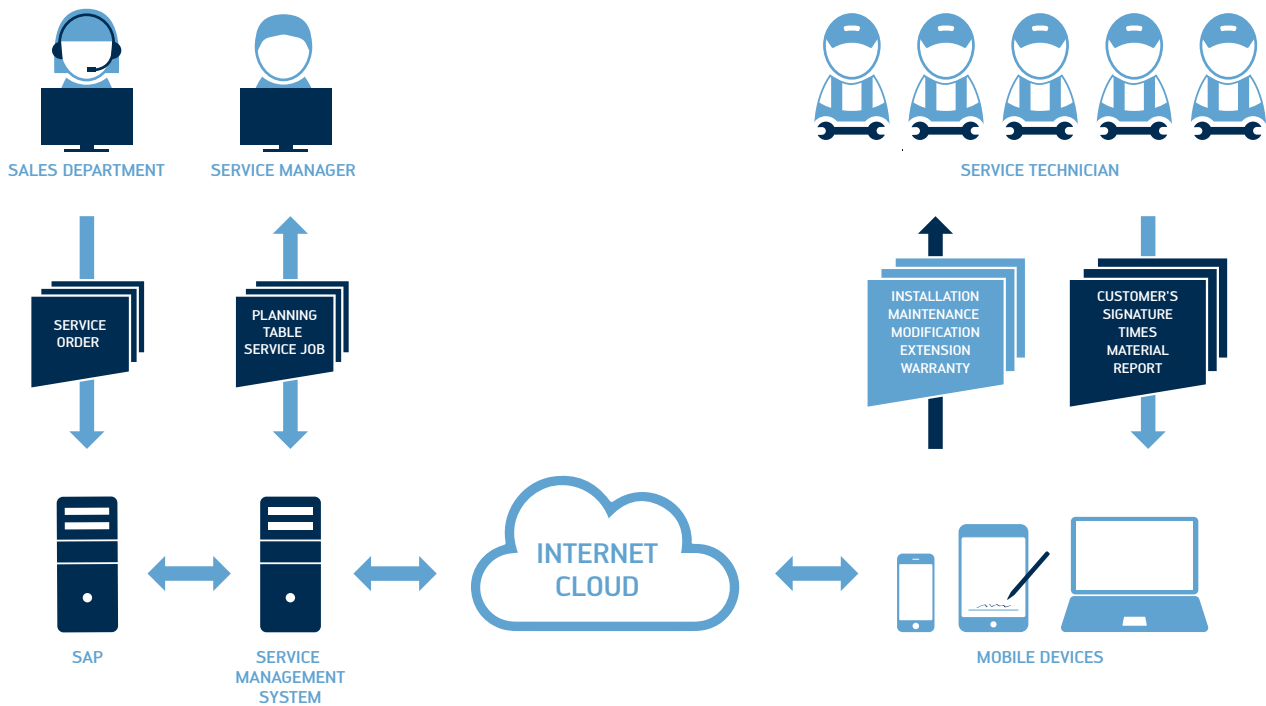
### Objectives of mobile service solution:

- reduction of process steps
- reduction of the process running time
- no media breaks
- reduction of transport and waiting times
- no redundancy in data management and working steps
- acceleration of invoicing (in 3 days)

It started in 2013 with a diagram and an idea, which was to catapult the Ersä service into the Industry 4.0 era. Quote, Ersä team: we need a better, graphically supported deployment planning for the office service and an app for our service technicians, in order to reduce the machine downtime during service and maintenance work to the bare minimum. Via the already realized mobile service solution the service technician receives all relevant data for the planned operation. Fast, complete, directly on the mobile device. From any location the electronic order can be accessed, including driving directions to the customer's site and information about the needed materials, as well as where they are provided. All service-relevant business processes are portrayed transparently in the central system. The basis is the SAP standard software, in this case the CS module (Customer Service) with integrated mobile service process.

With the introduction of the app, manual recording and planning in the digital system were simplified – for service technicians in field service and also for the office service in post-processing. The overall intention is to rise the machine availability and thus the customer's productivity.

A purely SAP solution was not possible as the graphical SAP plan board is not flexible enough. At the end of 2014 the decision for a software provider was taken. After numerous tests and preparations the software adapted to Kurtz Ersä's requirements was completed in January 2016. The new graphical plan board gives the planner all the tools he needs "to keep it simple". For example, a planner produces a new service order with a mouse click directly in the visible gap via the "Service Capacity Monitor" – and books a service technician for the required time.



### Leaner service processes

All the processes in service were tested in the course of the project and were simplified and made leaner. Today, all the service technicians use the service app. Service Capacity Monitor and service app were and are being rolled out in the Kurtz machine factory and with the Kurtz North America subsidiary in the USA. 100% of the feedback of travelling and working times from the service order run via the service app. Customer invoices are produced within three days on the basis of the service docket which is connected via SAP and is distinctly quicker and has also been signed by the customer.

### Ersa service app inside

When the user opens the app, he gets an overview of open service orders and finds out more with a double click. The service technician can download the complete history of all service reports and service work already done for the machine serial number in question – without a separate log-in with SAP. The huge advantage: Even if different service technicians are at the customer's site or the client's contact partner changes – all the relevant data is always available. In each service job,

the current SPS and Visu status of the machine is inquired and confirmed by the service technician. The app synchronises these figures to SAP into the machine history, with the result that office service can have recourse to current software figures.

"From now on every service technician receives at the push of a button all the information and knows about the complete service work – even in case of a long machine time. By doing so, we don't lose information and are able to perform at a high-quality service level for our customers," said Ersä Service Director Lutz Böse.

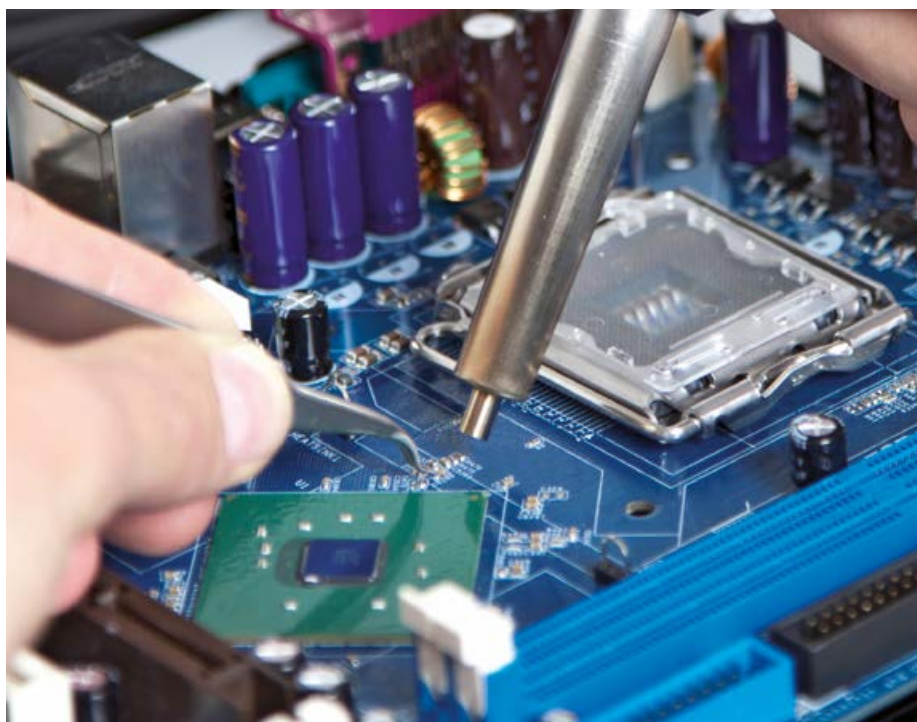
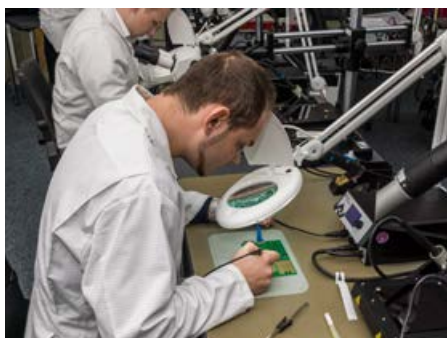
Even if on-site it becomes apparent that further actions or parts are needed, the service technician is able to report this directly from the app – by "ticking and removing the tick" of components. This can also trigger a subsequent activity for the office service, which reaches the responsible clerk in the office service as a service report via the SAP workflow. Thanks to the Service Capacity Monitor, planning of the capacity and also the current status of the order in the sense of a status quo is immediately visible in office service. Deployment planning for the Ersä service technicians is automatically transmitted to

all the technicians directly from SAP each week. The new service levels' intention: to put the clients' machines into operation as soon as possible after service and maintenance.

### Future prospects

Thanks to the users' constructive inputs, the app will continue to grow. The next step is the direct transmission of the travelling expense and travelling time settlement to Human Resources, in order to profit from the lean processes across area borders. In the app, proactive checklists and protocols are to give support in commissioning and maintenance of systems. App, app and away, Ersä Service! ■

*Qualified staff reduces faults and increases the productivity.*



AVLE specialist for welding technology

## Qualified soldering – with training for success!

The catchphrase “skills shortage” is like a red thread through German industry and handicrafts. Electronics production has been particularly affected, as only training as a micro-technologist teaches the necessary know-how. Filling this vacuum with well-founded knowledge about soldering is the objective of the AVLE.

The Soldering Technology Electronics Training Association (AVLE) is an amalgamation of the firms of Hannusch, Rafi, Zollner and Ersä. The objective of the AVLE is a nationwide standardised, close-to-practice and certified training of employees in the field of soldering technology. The contents of the coaching are tailor-made to match modern requirements in electronics production. The close relationship to practice of the AVLE partners guarantees continuous adaptation of the course contents to current technologies in the production of electronic components and appliances.

of the coaching, all the attendees take a practical and theoretical examination at the end of the module. Successful module attendance is confirmed by an exam certification and an AVLE welding licence.

### Advantages of the AVLE training:

- increase in quality and competitive benefits thanks to qualified staff
- higher dependability of manual soldering processes
- reduction of costs by effective, safe working

### Modules, AVLE specialist for welding technology

■ <b>Modul 1</b>	(3 Days)
Foundations, soldering and THT basic coaching	
■ <b>Modul 2</b>	(2 Days)
SMT basic coaching	
■ <b>Modul 3</b>	(2 Days)
SMT advanced coaching	
■ <b>Modul 4</b>	(2 Days)
Rework of complex components	

The coaching is done in professionally equipped and registered course locations and is given by specifically qualified trainers. If a customer fulfils the prerequisites, coaching on site is also possible. The attendees' soldering performances are assessed on the basis of the IPC standard A-610. The coaching concept has a modular set-up, by which the training is divided into short blocks of two to three days. Modules 1–4 cover manual and repair soldering. All the modules follow up on one another, experienced employees can join in the course of time. As proof of the success

We are particularly proud of the cooperation with the Electronic Design Specialist Association (FED) in Berlin, which has decided on the AVLE coaching programme and is offering it successfully. Currently, AVLE is working on the integration of further modules covering the range of wave and selective soldering as well as soldering paste printing and reflow soldering.

More information on AVLE and all course contents online under <http://training.ersa.de> or in direct dialogue with Ersä. ■

# Global meeting at Erska

From 10 to 13 October, Erska as Europe's largest manufacturer and market leader in many areas of soldering technology invited its worldwide sales organisation to the "International Sales Meeting" in Wertheim. From Scandinavia to Australia and from Chile to Japan, around 80 international sales partners took the invitation to the Erska headquarters by the River Main. Likewise, representatives of the Kurtz Erska branches from China, France, Mexico and the USA were present. With a dense and attractive programme on three days, the specialist in electronics production equipment presented new machines and systems from the areas of manual welding, rework, wave, reflow and selective soldering as well as stencil printers, the latter also being tested extensively in "hands-on sessions". Alongside information on the latest technological developments, there was agreement on joint strategies, in order to be able to continue to offer the customers the best solutions. And a clear signal went out to all those present – the successful Erska "Festival of Innovations" is being continued unbroken in 2017.

## 700 machines and 200 rework systems delivered

For their outstanding cooperation around the world, all the sales partners were given their quite personal Erska Partner Certificate as part of a festive evening event. There was also a Finnish-German anniversary to celebrate: for 30 years now, Ekväl Oy near Helsinki has been a sales partner for Erska GmbH, for which the Erska Area Sales Manager responsible for Fin-

land, Tobias van Rossem, handed a shake-hands figure to the Ekväl Product Manager Pekka Saastamoinen. "Erska is turning 95 this year – and is more active than ever before. By the end of the year, we will produce and deliver way more than 700 machines and 200 rework systems – which we owe to a combined global team performance, with which we are on the best path to a further distinct increase in turnover in 2016," said Erska Overall Head of Sales Rainer Krauss. Despite extensive "day work", the international Erska family still had enough energy in the evening to celebrate to-

gether. In the end, everyone was happy about a very successful event and is now looking forward to the next appointment, which has already been set for 2017. ■



*Congratulation and gratitude to Ekväl Product Manager Pekka Saastamoinen for 30 years of successful partnership.*

## electronica 2016 – another Erska highlight!

Under the slogan "Connected Worlds – Safe and Secure!" electronica, the largest electronics trade fair in the world, took place in Munich from 8 to 11 November. More than 2,900 exhibitors from more than 50 countries presented their products and technologies to the interested trade visitors.

System supplier Erska participated as well and presented different solutions and systems of tools, rework and maintenance at its own

booth. For example the optical service system ERSASCOPE 2 plus, which analyses hidden BGA-soldered joints, or the innovative Erska rework system HR 600/2 VOIDLESS with a high degree of automation, as well as the new Erska HR 550 for the processing of high pin-out SMD components within complex electronics assemblies. The multifunctional soldering and desoldering station Erska i-CON VARIO 4 with solder fume extractor EASY ARM 1 attracted high attention of the visitors, too. "On the whole the

interest in Erska products at the electronica was very high and we were able to present our innovations to customers and potential buyers in a direct dialogue – an excellent opportunity, which we seized via numerous deals and inquiries," said Hansjürgen Bolg, head of Erska Tools, Rework and Inspection Systems.

## Best Practice: Eaton MTL and Ersä

# Absolutely No Room For Defects



As leading supplier of energy management solutions, Eaton helps its customers to more efficiency in their use of electrical, pneumatic and mechanical energy. Many Eaton products monitor processes that require the highest level of security – failure-free operation is of paramount importance. Thus, the highest standards must be adhered to in the manufacturing process, where – since June – two Ersä soldering systems are installed.



*Powering Business Worldwide*

In the 2nd half of 2016, the electrical division of Eaton Measurement Technology Limited (MTL) received two new Ersä soldering systems: A full-tunnel wave soldering unit POW-ERFLOW e N<sub>2</sub>, and a reflow soldering unit HOTFLOW 4/14. The objectives of the electronic manufacturing group: To improve the energy efficiency while complying with the RoHS-EU-Guidelines and to increase the production capacity while maintaining the quality level.

### Optimal manufacturing solutions, optimal support

The first contact to Eaton MTL was established by Ersä's sales partner Blundell Electronic Production: A follow-up system had to be sourced for Eaton MTL's 12 year old wave soldering system. Two suppliers were on the

short list – one of them Ersä. Initial specification was for an open system, no nitrogen. "Many highly security-critical processes are monitored, controlled, visualized or protected by our Eaton MTL products, such as offshore oil and gas platforms, power plants or refineries. And with our own global network of sales and service facilities, our customers are always in the best hands," states Dipen Dixit, manufacturing engineer at Eaton MTL. He continues: "During the equipment evaluation process, it showed that Ersä not only is the market leader in soldering technologies, but it also proved to be a supplier that will use poka-yoke solutions – inadvertent error prevention – when striving to fulfill its customers' requirements. Ersä possesses excellent know-how – and this, combined with the service and support based in the UK, made Ersä/Blundell the perfect match for us!"

### Eaton MTL in Numbers

■ MTL – established :	1971 (Eaton: 1900)
■ Location Luton:	314 Employees
■ EATON total:	97,000 Employees
■ Sales 2015:	127 Mio. Euro
■ Total sales Eaton:	20.9 Billion \$



*Dipen Dixit, Manufacturing Engineer at Eaton MTL and responsible for electronic manufacturing in Luton.*

*Dialog with Ersä Tools Manager Hansjürgen Bolg about rework and hand soldering stations.*

*View of the Reflow Soldering System HOTFLOW 4/14 in the Eaton MTL Production Area.*



Back to the wave soldering system. For the initial test of the soldering system, Eaton's engineers visited Ersä's demo center in Wertheim. Tests were performed on the equipment, processes evaluated, and the hard and software was scrutinized under different scenarios. With its singular knowledge for optimal manufacturing solutions, Ersä could show that a nitrogen wave soldering unit would offer substantial benefits when compared to an open system. It offered higher process safety, improvement in product quality and in operating costs. Also, the quick and easy access to the fluxer unit and the solder waves was noted. During discussions, it turned out that Eaton MTL was also purchasing a reflow soldering unit. Main criterion here: an exit temperature of the boards of less than 35 °C. The Ersä HOTFLOW 4/14 also impressed Eaton MTL with its high uptime, thermal performance and superior energy balance, so that Ersä was also issued this purchase order. "Though we were very pleased to have received these two purchase orders from Eaton MTL, we had now one concern: in addition to the system installations, the facility of Eaton had to be fully converted to the

lead-free process in just one weekend," states Ersä's Area Sales Manager Christian Ott. To accomplish this, the switch had to be thoroughly investigated: The lead-free process requires different temperature profiles, so that the parameters of the tin/lead process are not transferable. This meant that all products had to be parameterized in advance, so that production could smoothly commence following the installations. It was therefore decided to ship the systems to Blundell, to install them at their facility and to establish the lead-free processes and train the equipment operators. These preparatory steps were necessary to successfully perform the changeover as planned on a single weekend. The wave soldering system installed at Eaton, with two solder waves and a preheat length of 1.5 meter, features a pallet-type conveyor, which allows that boards of different geometries can be processed one after the other.

#### Support with quick reaction

It was a difficult task to realize, but in the end it worked out because Ersä, through its partner Blundell, was very close to its customer.

Support was offered with short ways and quick reaction times. This, next to the performance of the Ersä soldering units, was very important for Eaton MTL. As a global player, Eaton realizes projects worldwide and therefore needs global support. "Eaton would like to express its gratitude to the Blundell/Ersä team for the assistance granted in setting up the optimized operation of our new wave and reflow soldering systems. We are very satisfied with the equipment and the services delivered, particularly in view of the changeover to the lead-free process," writes Dipen Dixit to his contacts at Blundell and Ersä. Eaton MTL also uses hand soldering products from Ersä – 50 i-CON single soldering stations were sent to Luton, after they had proven themselves to be more economical and easier to handle. We look forward to continued good business relations with zero tolerance for defects! ■

*Ersa HR 550 Hybrid Rework  
– highly precise component  
placement, with placement  
force recognition and  
ergonomically convenient  
placement of the controls  
at the front of the system.*



## Ersa Hybrid Rework System HR 550

# High Performance Rework for Professionals!

The repair of printed circuit board assemblies – particularly the repair of high-pin-out SMD components – has always been considered difficult. But rework systems have substantially raised the level of reliability and reproducibility. Now, with the introduction of the Ersa HR 550 Hybrid Rework System, the process of board repair has left its niche existence!

### Ersa Rework System HR 550 – future-proof through flexibility and modularity

- Exchangeable hybrid heating head – facilitating service and for fitting future heating head versions
- Process guidance through thermocouples or non-contact IR sensor
- Bottom side heater with three separate process
- Vision box with two different magnifications – component sizes from 01005 to 70 x 70 mm
- Image processing for Computer Aided Placement (CAP)
- Ready for operation with the Ersa Dip&Print Station
- Modern operating software HRSoft 2 with user guidance

While the challenges in board repair have not changed, the tolerance window for permissible deviations has become smaller. If the temperatures on the board are too high, the board or the components may get damaged. Everyone who had to remove a BGA without proper tooling has made this painful experience. The high process temperature (230–240 °C) of lead-free solders reduces the tolerance range for the maximum permissible component temperature to typically 260 °C. A modern rework system must be able to meet this requirement, yet further miniaturization and new package designs are raising new questions: How can new component shapes be handled, how can new fluxes and solder pastes be applied? Answer: with the highest flexibility and modularity in the design of the system.

### Controlled Heating Power

In the HR 550, the board will be gently and homogeneously heated. Process monitoring takes place in a closed loop control circuit. For this, contact sensors and a digital IR sensor are available. With a 1,500 W hybrid high performance heating element, SMT components up to a size of 70 x 70 mm may be processed. The combination of IR radiation with a defined proportion of convection ensures a highly dynamic heating process. The 3-zone lower heating unit with medium wave length IR emitters delivering 2,400 W evenly heats the complete board. The nominal profile defines the heat distribution across the board. Light and low mass PCBs can thus be processed with a “balance” different from that of heavy boards.

An important criterion for many customers: The first and the nth board repaired have to show the same excellent results. The process control of the HR 550 permanently monitors the temperatures of components and pre-heaters – this feature delivers a previously not achieved level of reliability and repeatability of the solder process.

### Very precise component placement

The precise placement of the components plays a decisive role in determining whether the repair will be a success or a failure. For high pinout miniaturized components with hidden connections (bottom terminal component, BTC), an imprecise placement often is the cause for a defective solder connection (bridging, open joints). The HR 550 offers intelligent technical solutions to overcome this: The high-resolution 5 MP camera with its preceding special optic offers the user high-contrast images of the chips, from chip size 01005 up to components of 70 x 70 mm. A unique feature of the HR 550 is the optical shift to two different zoom levels for large and for small components.



*Erska HRSoft 2 – QFP orientation with digital split optic.*

Under the term "Computer Aided Placement" (CAP), all functions supporting the user during placement are summarized and made available via image processing. When components are being aligned, a live image will show, in virtual colors, the connections of components (red) and the terminal pads (green). Optimal superimposition of joints and pads is recognized by blue coloring. Another tool is the digitally split optic which assists when aligning components such as large QFPs.

With the rotational adjustment and the x-y micrometer adjustment features, each component can be placed precisely on its designated pad. Of particular advantage: the operating controls are conveniently placed at the front of the system. Components are removed and placed with a highly precise vacuum pipette integrated into the heating head.

### Process guidance with new software platform

The HR 550 features the newly developed software platform HRSoft 2, which impresses by its clarity and functional arrangement – all process steps of the procedure are logically displayed and can easily be configured and executed.



*Erska HRSoft 2 Profile selection and start of the 5 guided process steps.*

The operator prompting (Enhanced Visual Assistant – EVA) takes the user through the rework routine, from the selection of a profile for desoldering through the subsequent alignment and placement of a new component, right up to the soldering process. The application of solder paste on the component by

using a printing template or the flux dip-in process is electively supported. All process steps and the associated parameters are documented, so full traceability of all rework processes is ensured. Conclusion: The HR 550 is ideal for all those users, who have high demands on precision and process safety when reworking their board assemblies. It is the ideal tool with which to make the repair of board assemblies a stable and manageable process! ■



*GUIDED REWORK  
Erska HR 550 video*



*Erska HR 550 Hybrid Rework System – Rework at the highest level with guided processes in a new software platform.*



*Ernie Grice, Vice President Sales at Kurtz North America, is pleased about the GTA Product Award in the category "Selective Soldering".*

*Viktoria Rawinski, Ersä GmbH, and Rework Specialist Todd Dezwarte (Ersä USA) with the GTA Product Award in the category "Rework and Repair".*



## Global Technology Awards for Ersä products

Since 2005, the Global Technology Awards have been given in the USA – each year, outstanding, forward-pointing products and systems for electronics production are given prizes by a selected jury of experts. At the end of September, the team from Kurtz North America was able to receive two product awards as part of the SMTA International in the Donald Stephens Convention Center in Rosemont, Illinois (USA).

The awards for the Ersä systems were in the categories "Rework and Repair" and also "Selective Soldering". According to the lasting trend for miniaturisation of high-capacity components, the loss-free thermal conductivity of soldering points in the SMT process is becoming more and more important – and void-free soldering points in high-capacity electronics are becoming more and more a part of the focus. The highly automated HR 600/2 VOIDLESS rework system is technologically absolutely state of the art in this regard and convinced the jury with its VOIDLESS technology, which leads to a void level of less than 2 % – and thus achieves the same low void level in the production process as a HOTFLOW reflow soldering system with a VOIDLESS module.

Ersä also hit the nerve of this extremely dynamic electronic production branch with the newly developed VERSAFLEX soldering module, which provides unlimited flexibility and maximum productivity – two solder pots (y-x variable or z-variable), equipped with various solder and various solder nozzles, which work in parallel. With the software version 5.4, the pot can be moved freely in an x, y and z direction – with each solder pot acting completely independently and collision-free.

"We are pleased about the two awards. The GTA product awards are an important indicator for electronics production and for us once more the confirmation that we fulfil customers' requirements with innovative products and systems. We will also continue to provide our customers and the market with innovative solutions which not only fulfil customers' requirements in electronics production, but lift them to a new level," said Albrecht Beck, President and COO of Kurtz North America. ■



*VERSAFLEX soldering module.*

Kurtz Ersä employee

# Kick-off – and complete concentration!

**Soccer mobilises millions of people: Up and down the country, fans flock to their team's home and away matches or follow the events closely on their TV screens. In order to ensure that it all happens in accordance with the rules, league matches are overseen by a team of referees. Sinan Kaleli (25), in his day job core-making supervisor at Kurtz Eisen-guss, is one of them.**

I have been an active soccer player since the age of three, laterally in 2013 with SV Viktoria Wertheim in the Landesliga (district league). That means training three times a week plus matches or tournaments – reconciling that with a job was getting increasingly difficult. I have been working in the iron foundry since 2007 – first as an apprentice foundry mechanic, then for one year as a journeyman in the core-making shop before becoming night shift supervisor. It was at a tournament that I saw a poster advertising a training course for referees, and thought to myself: I'm going to try that out! I took the exam in 2014 and passed it first time – and have been refereeing since. Hardly a weekend passes when I'm not on the pitch as a referee. I would never have thought that it would be my thing, or that I would enjoy it so much. And there is sporting competition here too; you can advance to a higher class, but you can also be

demoted. You have to pass theory tests and be physically fit. I was promoted fairly quickly to higher classes and am now refereeing right up to Landesliga – the class in which I used to play myself. So I am still close to soccer; sport is important to me. But I can give my all at work too. Last year I was asked if I wanted to become supervisor of the core-making shop and take responsibility for 16 colleagues – at the age of 24, at the time. Of course I wanted to! Initially it was a bit strange to find myself issuing instructions to the people who had taught me all about the job. But working together we made a good fist of it. The same thing holds true here on the core-making shop and on the pitch: Straight talking and clear decisions are the way to get people behind you. I won't hear a bad word about my colleagues. I want to continue developing both professionally and in sporting regards as a referee; I'm still young.

When we go out onto the pitch as referees, we always know that complete concentration is required right up to the last second. Something can happen at any time – regardless of whether it's at Kreisliga level or in a play-off, when promotion to the Landesliga or above is on the line. The mood is tense on the pitch and on the sidelines, and I can feel the adrenaline too – you have to take split-second decisions, and they have to be right. Without

## KURTZ ERSÄ *inside*



*Sinan Kaleli, 25,  
supervisor of the core-making shop at  
Kurtz Eisenguss and referee by passion.*

action replays or super-slow motion. I often go through the match again in my mind afterwards and check on whether I did actually get all the decisions right. I have only been refereeing since 2014, but it would be really cool to be sent to referee matches in the higher leagues – I am certainly keeping my eye on the ball! ■





## Kurtz KPS 2000/25-12 SKT trimming press goes USA

# Bigger – Better – Farther!

It is not the cutting force alone which makes customers buy the Kurtz press, but also the following factors:

- Clamping area
- Speed/cycle time
- Permitted weight trimming tool
- Machine operation
- Software
- Tool control function

For two years now, Kurtz GmbH has had the largest and fastest trimming press on the market, the KPS 2000/25-12 SKT, already being used successfully by a range of customers. Of course the development of the Kurtz press has not stood still in the two years since its launch. Rather, the KPS 2000/25-12 SKT has been expanded to include further highlights. All models can be freely selected – for example the tables are available in tilting, sliding and slide-tilt versions. Time and again, this flexible adaptation to individual requirements has proven to be the decisive factor in the customer's decision-making. This press type is now also available in the US. In addition to the version with 200 tonne press force, a further version of the Kurtz trimming press with 300 tonne press force is also being built.

In addition to the speed – certainly one of the major arguments in an ever accelerating casting process – service and spare part supply are important decision criteria for every customer. This naturally also applies for the US, where Kurtz Ersä has been represented for over 30 years with Kurtz North America Inc. in Plymouth, Wisconsin. Of course, the business activities of the independent subsidiary for the US market also include service and replacement parts. Whether in the US, Europe or Asia – if you too are looking for “a little more” from a trimming press, contact the team at Kurtz Gießereimaschinen directly! ■



# AHEAD COMPLETE GLOBAL

## A motto is being lived!

Kurtz Gießereimaschinen is known as a complete supplier for foundry lines and production systems for the foundry industry. A number of large projects of this kind have already been implemented by the moulding machine experts from Kreuzwertheim. The holistic support approach – the “complete” from the motto “Ahead – Complete – Global” – starts at a very early stage with Kurtz in the firm of customer workshops. They have nothing to do with “classical sales events”, but form the economic-technological foundation for the solution of the customer’s task. The customer has the possibility of turning to the Kurtz foundry machine team with the complete

problems of his foundry production. Best of all with the current problem, the topical challenge, pinnacle in the question: “How can I produce the foundry part most effectively and most profitably?” In a joint workshop, the possibility of producing the cast part is discussed right down to increasing the efficiency of the entire production system and the production concept is resolved.

In this, all the individual steps of the production processes are illuminated:

- core manufacture (mould material, mould technology, machine technology, core logistics)

- smelting
- foundry (mould/ingot, cooling/temperature management, sprue system, furnace technology/logistics)
- automation
- pre-processing (de-coring, deburring/sawing, cleaning, testing)

Depending on the scope, such workshops last between one and three days, can be repeated if necessary and are held all over the world. The information and concepts obtained in this way form the basis of a successful implementation of turnkey projects. Pack your own carefree package together with us – we are looking forward to your inquiry! ■

## WORKSHOP MOSCOW

Complete success can be reported for the two-day Kurtz Workshop “Increasing efficiency in the foundry” held in Moscow in September, organised together with the partner companies StrikoWestofen, Mössner, Loramendi and FAT. Many of the executives from the companies involved travelled to the workshop – indicating the faith of German firms in Russia as a market for foundry equipment. The reception of representatives of the foundry industry from Russia and the Ukraine was enormous, too. Hardly remarkable, because the involved companies image the whole casting process and realise this

bandwidth in concrete projects by common appearance at the customer. The talks on such foundry themes as smelting, casting, core removal, cutting, trimming, finishing and handling of sand cores and moulds in magnesium low-pressure casting were attentively observed. The speakers had a plethora of questions to answer in the following session. And the coffee breaks were also used for an eager exchange of ideas – prospective customers obtained information, existing customers discussed projects with colleagues and suppliers, employees of the Kurtz Ost subsidiary got to know contact

partners at the customers personally. All were in agreement that the know-how transfer from tool or machinery suppliers to foundrymen and on to the buyers of the moulded parts is extremely important. Alongside the trade fair for metallurgy, machinery, plant technology and products, LITMASH 2016 – held every July in Moscow – the first Kurtz Workshop in Russia established itself directly as an important foundry meeting point for aluminium parts. Kurtz is already planning further events to strengthen and expand the dialog with customers around the world. ■

# K 2016 complete success for market leader Kurtz

Attractive presentation with innovative Industry 4.0 solutions

Under the motto "AHEAD COMPLETE GLOBAL" Kurtz GmbH presented itself from 19 to 26 October at K 2016, the world's premier fair for the plastics and rubber industry. The high number of decision-makers, the professional intercommunication between research and industry and the attractive framework programme with lectures and demonstrations made the international fair a unique experience with high market value.

## Entire production process at a glance

On an exhibition area of just under 200 m<sup>2</sup>, the market leader of machinery for particle foam processing underlined its leading technological position with innovative Industry 4.0 solutions which constantly keep the entire production process in mind. With attractive exhibits, a robot cell in live operation, a filling injector maintenance station and a mobile control station system, the Kurtz Team demonstrated that it is "Industry 4.0 READY" right across the board to improve the customers' production processes.

Among the Kurtz K highlights were the Kurtz ROTO FOAMER shape moulding machine with handling robot, which can differentiate between damaged and perfect moulds during the demoulding process – an important aspect in quality assurance. Of course visitor interest was attracted to the machines on display such as PRO FOAMER and ROTO FOAMER. To at least the same extent, the focus was also on the Industry 4.0 features, with which Kurtz simplifies and augments the entire production process, leading to greater efficiency and increased productivity. The Kurtz i-CAP filling injector system which ensures the highest machine availability was particularly well-received. Visitors were also able to test the Kurtz Remote Service 4.0 for themselves – with the augmented-reality smartglasses, the customer's field of vision is transferred to the service technician, so that he can optimise the parameters in real time and 24/7 and eliminate existing faults.

## Visitor numbers at Kurtz fair stand significantly increased

The Kurtz Team looks back on a successful fair – the high visitor numbers at the Kurtz fair stand at K 2013 were significantly increased once again this year. During the entire eight days of the fair, the Kurtz fair team catered to a constant stream of visitors – with numerous exciting discussions.

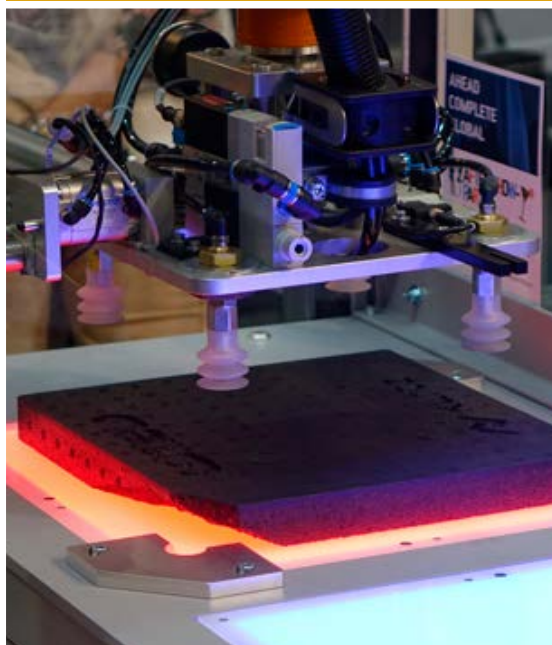
A real magnet for visitors was the after-show party on Monday evening where the whole particle foam branch got together in a relaxed atmosphere. In addition to the many regular customers and new potential customers from both Germany and abroad, the high level of interest from South America was remarkable. Kurtz CEO and CTO Kurtz Erska Group, Uwe Rothaug, is very satisfied with the K Trade Fair: "Our participation in the fair in Düsseldorf was a complete success! With our innovative Industry 4.0 solutions, we have set a clear benchmark as market leader in the processing of particle foams and presented our entire solution competence to trade visitors in high-calibre consultations and sales pitches." General Manager Kurtz Particle Foam Machines Harald Sommer is more than satisfied: "We are returning to the Spessart region loaded down with direct orders and inquiries – the coming weeks in the fourth quarter are going to be sporty!" ■





*The Kurtz fair stand was well attended throughout the entire fair and generated large numbers of promising customer inquiries.*

*The machine highlight – the Kurtz ROTO FOAMER with robot.*





Successful cooperation with adidas is being expanded further

## Kurtz Ersa is important project partner for SPEED FACTORY

Launched in December 2015, the adidas pilot project SPEEDFACTORY is in full swing. Already in 2017 the production of high-quality running shoes is planned to go into serial production. The opening of fully automated production plants worldwide will allow to produce running shoes directly in the particular sales market in future. With the SPEEDFACTORY adidas' aim is to produce highly functional sports equipment in a significantly shorter

time on the spot. The soles with its higher energy return, comfort and responsiveness is the result of intensive research and tests. In close cooperation with adidas and BASF the Kurtz Ersa Team was successful in developing a safe and repeatable production process at increased productivity and higher energy efficiency. For these ambitious requirements and targets called for by adidas, Kurtz Ersa made the shape moulding machine BOOST FOAMER available, which, as first machine ever, realizes a proven and optimized process for the processing of Infinergy® material in serial production. Special filling technologies and steaming variations ensure a safe production notwithstanding the very tight processing window.

Kurtz Ersa, located in the northernmost part of Bavaria, is world market leader for the production of machines for the processing of particle foam materials. It is Kurtz Ersa's main concern to support and push forward innovative projects and software solutions towards Industry 4.0. On the world's No. 1 Trade Fair for Plastics and Rubber, K 2016,

which took place in Dusseldorf from 19 to 26 October under the motto AHEAD COMPLETE GLOBAL Kurtz Ersa presented some of their innovations simplifying the handling, maintenance and monitoring of machines optimizing the complete production process. Kurtz Ersa is very proud of having contributed significantly to the production of complete soles in the adidas SPEEDFACTORY. The automated, decentralized and flexible production process for the pilot production of BOOST shoes in Ansbach, Germany. Additionally, this project has a very positive effect on the environment: transport emissions are diminished and the use of adhesives could be drastically reduced. Mr. Rothaug, Kurtz director and CTO of the Kurtz Ersa Group is pleased: "Sustainability is an integral part of our corporate culture. All business segments of the Kurtz Ersa Group constantly evidence their production processes with concrete targets for improvements under the aspect of sustainability. With the SPEEDFACTORY project the Kurtz GmbH considerably contributed to realize a shoe production at site at the end customer. A fact, we are very proud of." ■



Heading steadily  
towards  
Service 4.0!

## Kurtz Service, quo vadis?

Customer expectations are rising constantly with regard to the reliability and availability of their particle foam and foundry systems. The demands made of Kurtz GmbH: short reaction times, fast delivery of spare parts and services which prevent machine downtimes.

Kurtz Service is taking up these challenges with a variety of solutions:

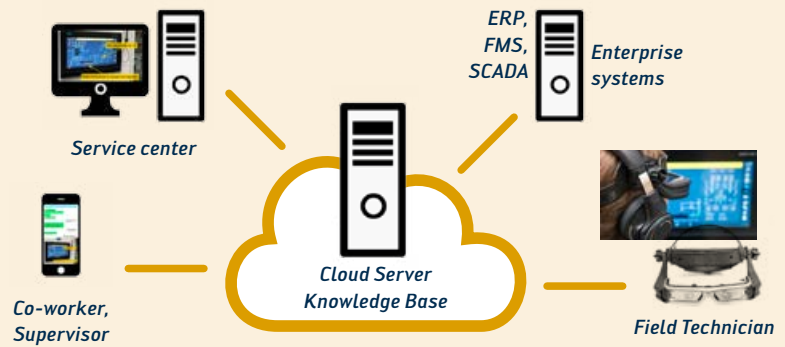
- Online webshop for Kurtz parts,
- New technologies in data monitoring and augmented reality,
- Comprehensive servicing concepts with corresponding servicing schedules,
- Training programmes for efficient operation and an
- "Inefficiency detection" audit to improve cost effectiveness

The innovative concepts on the road to Service 4.0, which Kurtz GmbH has systematically developed and introduced in recent months, were presented to the wider public at the major plastics fair, K 2016, in Düsseldorf in October. With product images and illustrations, the online webshop with over 10,000 Kurtz parts simplifies the selection of the required component for the buyer, and permits 24/7 spare part ordering.

### "Augmented reality" reduces costs

A key project in Kurtz Service is the application of augmented reality solutions. Digital image information on the machinery is exchanged in real time between the customer and the Kurtz experts. This facilitates faster problem solving with reduced costs, often doing away with the need for an expensive and time-consuming visit from the Kurtz technician. This is where Kurtz Service offers the

"Smart Remote" and "Data Remote" service package for individual cases (on-demand) or as a service agreement, which can be expanded to include 24/7 service. The servicing concepts and schedules which Kurtz Service develops for its customers help the client's staff to make maximum use of the machinery. Corresponding training concepts allow the employees to maintain and operate the system as efficiently as possible. A high degree of cost-effectiveness throughout the entire production facility can be achieved by implementing the results of the Inefficiency Detection Audit (IDA). IDA records process sequences, possible energy wastage and safety aspects, analyses the results and documents them in an audit report. Corresponding improvements are devised and the recommendations discussed with the customer. The complete range offered by Kurtz Service focuses on one objective: the customer's success! ■





## MBW celebrates 20 years with Technology Day and a commemorative ceremony

# Great potential for further growth

At MBW Metallbearbeitung Wertheim GmbH, 23 September was all about “20 years of MBW”. At 9 o’clock on a sunny Friday morning in late summer, MBW Managing Director Matthias Sacher greeted the first guests to the Technology Day, which illuminated the most diverse aspects of thin sheet metal technology in a wide-ranging lecture programme – topics ranged from efficient value analysis, digitally linked production, electronic data exchange in the sheet metal processing chain and new possibilities in contract manufacturing. This was followed by guided tours of the MBW production halls.

The Kurtz Ersä HAMMERCHOR choir and HAMMERGEBLÄSE brass band set the tone from 1 p.m., the beginning of the official ceremony. MBW Managing Director Matthias Sacher greeted those in attendance in the production hall, including Landrat (District Administrator) Reinhard Frank, Wertheim’s Mayor Stefan Mikulicz, numerous customers, the Kurtz Ersä management, the original managing director Ewald Garrecht and the MBW

staff. As well as reviewing the major highlights of MBW’s history, Matthias Sacher emphasised the current good prospects through the acquisition of a number of new customers, among them one with the two-million euro order, the largest in the history of the company: “We can look back on 20 exciting years. And we have the potential for further growth – thanks to the entire MBW team for your hard work in the years gone by!” Following the short welcoming speech from the Deputy Chairman of the German association of laser users – metalworking (Verband deutscher Laseranwender – Blechbearbeitung – e.V.), Ullrich Fischer, the Chairman of the Board of the Kurtz Ersä Group, Rainer Kurtz spoke about the future prospects for MBW: “20 years of MBW is an occasion for us to look back with pride – and forward with confidence.” Rainer Kurtz graphically described the origins of MBW, which emerged as the “tender baby” of the marriage between the old forge, foundry and metalworker Kurtz from the Spessart region and the considerably younger Ersä, concluded in 1993.

### MBW portfolio

- Construction
- Punching/nibbling
- Laser cutting
- Bending
- Welding
- Powder coating
- Assembly service



*Kurtz Ersä Chef Rainer Kurtz congratulates MBW Managing Director Matthias Sacher on 20 years in existence.*

*Wertheim's Mayor Stefan Mikulicz (left) with Rainer Kurtz (middle) and District Administrator Reinhard Frank.*

*Hitting the right note – the Kurtz Ersä Hammergebläse brass band set the mood in the MBW production hall.*



The strategic objective in the business segment Ersä soldering machines was strong growth with a significantly expanded export rate – leaving no room for the Ersä pre-fabrication. But there was also a keenness to retain the staff, the know-how and the machinery, which led to the establishment of MBW Metallbearbeitung Wertheim GmbH. Just a few months after being entered in the Commercial Register on 15.12.1996, sheet metal structure production commenced right beside Ersä. The aim was to achieve a share of deliveries to the group of less than 50 % and turnover in excess of five million Deutschemmark within five years. After just two years, one thing was clear: MBW was going to do it. Starting with 18 employees, the company developed steadily so that by 1999 space had simply become too tight. As a result of the dot-com bubble bursting at the turn of the millennium, the new building had to wait until 2004. “The choice of Reinhardshof is something we have never regretted – it offered and still offers room for expansion, which we already exploited in 2012 with the construction of the powder coating plant and the expansion

of the assembly capacity. Here on this site, we want to continue to grow with MBW and an attractive customer base,” said Rainer Kurtz, pointing out the ideal transportation access. Even though membership of the group makes access to grants more difficult, MBW benefits from the Kurtz Ersä infrastructure – a corresponding IT, capital structure, communication and wealth of manufacturing expertise. Hardly any other company of this size can offer the opportunities for training and professional advancement provided in the group’s own Hammer Academy. The aim and the greatest challenge for the future of MBW is to be a partner in our customers’ business in Germany and abroad. In a number of projects, MBW as a system partner has managed to successfully initiate cooperation with Kurtz Ersä’s foreign subsidiaries. “We believe in the opportunities in German mechanical engineering – and, with it, in a positive future for MBW. When it comes to infrastructure, technology, industrial engineering and technical expertise in sheet metal working, MBW has an excellent standing,” said Rainer Kurtz of the “birthday girl” MBW. ■

**20 Jahre MBW**



## Kurtz Eisenguss casts water pipe valves for project in Qatar

Erhard GmbH & Co. KG from Heidenheim an der Brenz has been part of the TALIS network of affiliated companies since 2010 and is among the world's leading manufacturers of plumbing fittings. The company produces a wide range of solutions for water circulation from DN 150 to DN 3600 – an increasingly interesting business partner for Kurtz Eisenguss. Since mid-2015, our SMART FOUNDRY has been supplying hand moulding sample parts in EN-GJS-500-7 quality. Since October we have been working together with ERHARD on a major project for the water supply in the Emirate of Qatar – where components, casings and valve disks of up to DN 2400, and with unit weights of up to 6,700 kg, have been in use. For the SMART FOUNDRY, the share in the overall project with a running time of approximately 12 months is around one million euro.

### Innovative model technology in large-size format

A particular challenge in the casting process is presented by components for valves in the size classification DN 2400. Following the initial sampling in February, the SMART FOUNDRY delivered large components for the

first phase of the project in May 2016. Series production for the second step in the project starts in autumn/winter 2016. In order to be able to produce cast parts on a process-capable basis, the SMART FOUNDRY technicians rely on innovative model technology: Specially produced welded constructions ensure optimum stability in the main cores – so that the use of classic “core irons” can be reduced to a minimum. A symmetrical and gentle removal of the core from the mould is achieved by using a pneumatically driven thrust device. This prevents stripping of the moulding material and reduces manual finishing as well as improving the working conditions for our staff. The feedback from our customers regarding the surface and properties of the cast part: “Outstanding!”. One thing which applies for all parts: They have to meet the highest quality standards – including material certificates, ultrasound, hardness and crack tests as well as certification from a testing institute. Looking at the dimensions of the parts, it is probably clear that our experts for model planning and construction had to call on all their great wealth of expertise. We look forward to continued close cooperation with the ERHARD team! ■



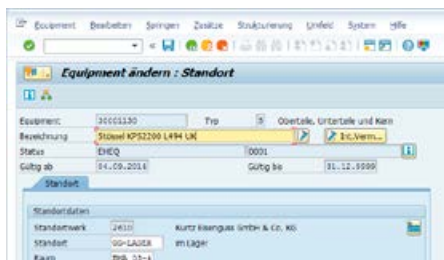
Unfinished castings housing DN 2400.

# SMART FOUNDRY, smart model administration

The SMART FOUNDRY in Hasloch is probably the most modern manual foundry for cast iron – and the Kurtz foundry team is also going down new paths in efficient and process-safe administration of the customers' models, always with their sights on the Industrie 4.0 target. The days of Excel spreadsheets and databases going past the leading SAP system have gone. An integrated model administration is indispensable for unproblematic sequences of production for customers. For this reason, all the model appliances provided by our customers have been recorded as three-part SAP production assistants and enriched with all the available data records. The production assistants have been portrayed in the form of equipment families and open up completely new possibilities in everyday dealings with the models.

## Process-safe production in top casting quality

For process-safe production with constant casting quality, a flawless condition of the model appliances is necessary. In order to



*SAP model space administration via equipment families.*



*Kurtz iron cast model truck in use.*

monitor achievement of maximum stipulated casting figures continuously, an insert counter has been integrated into the equipment. Each production order – and thus each removal from a cast – is recorded through feedback. If a model appliance reaches a critical threshold, SAP gives information about it in the form of traffic lights jumping to the “yellow” status. In this way, the SMART FOUNDRY team can notify its customers about forthcoming model maintenance work at an early stage. Administration of the models via equipments also provides further possibilities – for example, complete space

administration of upper, lower and core boxes has been directly integrated into the equipments. Booking of space movements is done by means of a logistic terminal which has been directly placed in the truck. Changes can thus be followed up online in real time – by which the logistic process has been designed decidedly more efficiency. The working stock for picking of model appliances is done directly from the fine SAP planning. Each planned production order generates a picking position for the factory logistics, which additionally transmits the information when a model appliance is needed in production. ■

## Fights for his customers!

In the SMART FOUNDRY, probably the most modern manual foundry for cast iron, Kurtz Ersä produces cast parts in the highest quality for mechanical engineering, wind power stations, engine and transmission parts.

Since early October, the team at Kurtz Eisenguss GmbH & Co. KG has had a competent reinforcement with Sales Manager Detlef Henze, in order to fulfil the customers' requirements and wishes as well as possible. Be it realisation of new projects, consultancy on construction to match casting,

on model building, achieving cost benefits or coordination of delivery plans in the centre of attention – with years of national and international sales experience, Detlef Henze is your competent contact in all questions of iron casting!

**What can he do for you?**

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*We're looking forward to your visit!*

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