44

July
2017

Kurtz Ersa Magazine

For Customers and Business Partners of Kurtz Ersa Corporation

kurtz ersa

Who supplies what?

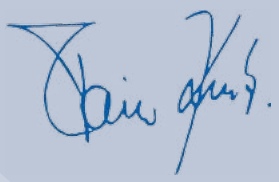
Rainer Kurtz,
Chief Executive Officer of Kurtz Ersa

For over 25 years, the Kurtz Ersa Magazine has been providing snapshots. Snapshots of successful projects, new technologies, internal improvements and, time and again snapshots of people – how they communicate, their hobbies and their peculiarities. Wherever things centre on people, we quickly find a topic. But when it is about the company as a whole, or about a project, things get more complex. Presenting this subject matter in a vivid, interesting and appealing manner is always a challenge. We present customer projects, solutions, case studies which, while ultimately relating to Kurtz Ersa, are always produced in close cooperation with our customers and generally also with our suppliers. We don't ask: "Who supplies what?", but rather: How can we, working together, deliver the best?

From next year on, our suppliers will be delivering to a new central warehouse; we report here on the groundbreaking ceremony. Once again, we have come up with interesting projects in all business sectors with a lot of new technology – and another man who also delivered was Walter Kurtz who, after many years as Chairman of the Editorial Board of this magazine, is taking the well-earned step of placing responsibility for this magazine in younger hands. Thank you, Walter!

In recent weeks and months, many events marked by terror, hatred, violence, heavy-handedness and selfishness have filled the world with fear, concern and to some extent confusion. We at Kurtz Ersa share a request of a very special kind directed at the world's political leaders: "Join forces so that our planet can preserve a healthy environment and clean air, prosperity, peace and freedom for all its inhabitants." ■

Glück auf! Yours Rainer Kurtz



Growth as "attractive employer"

By mid-year, the Ifo Business Climate Index had reached a new record high – German businesses rate the economic outlook more positively than they have done in a long time. This also applies for the Kurtz Ersa Group, which reported the third record year in succession in 2016 with turnover of EUR 247 million, and which continues on an expansion course in the current year. In addition to innovative products, this takes one other vital element: an effective, perfectly-networked team.

Growth always also means the expansion of the existing team – Kurtz Ersa has already reached a figure of 1,300 employees; mid-year (status 27.06.2017), the group reported 30 unfilled positions. With an unemployment rate of 1.9 % in the Main-Spessart region in May, the reporting month (statistics of the Federal Employment Agency), finding suitable applicants for the advertised positions is becoming increasingly challenging. Here, Kurtz Ersa positions itself as an attractive employer with a lot to offer its staff – including flexible, family-friendly working time models, fringe benefits, productivity bonuses, development opportunities and an extensive programme of apprenticeships and advanced professional training. This appeals to applicants – in addition, with streamlined professional processes, the Human Resources Team has succeeded in achieving a recruitment time of just over 40 days for Kurtz Ersa.

Procuring new staff is one side of the coin – the other involves up-skilling the existing workforce for digital networking. An important success factor here is the company's own knowledge platform, the Hammer Academy, which opened at the beginning of 2016 and was expanded this spring with a further two classrooms. Absolutely justified as the enrolment numbers have long since exceed the 4,000 mark; every year, 400 training courses take place. For many years now, Kurtz Ersa has also been extremely active as a company training apprentices, with the proportion of apprentices significantly above 10 %. Many former Kurtz Ersa apprentices remain loyal to the company and launch their careers as skilled workers here. The specific measures aimed at enhancing our "attractive employer" status are therefore taking effect and becoming part of our corporate culture – in objective terms too: in this year's Focus survey, run in cooperation with Kununu, Kurtz Ersa landed among the top five in German engineering – and even made second place among the small and medium-sized engineering companies. Confirmation and incentive in equal measure!

TOP
NATIONALER ARBEITGEBER
2017
FOCUS
DEUTSCHLANDS BESTE ARBEITGEBER IM VERGLEICH
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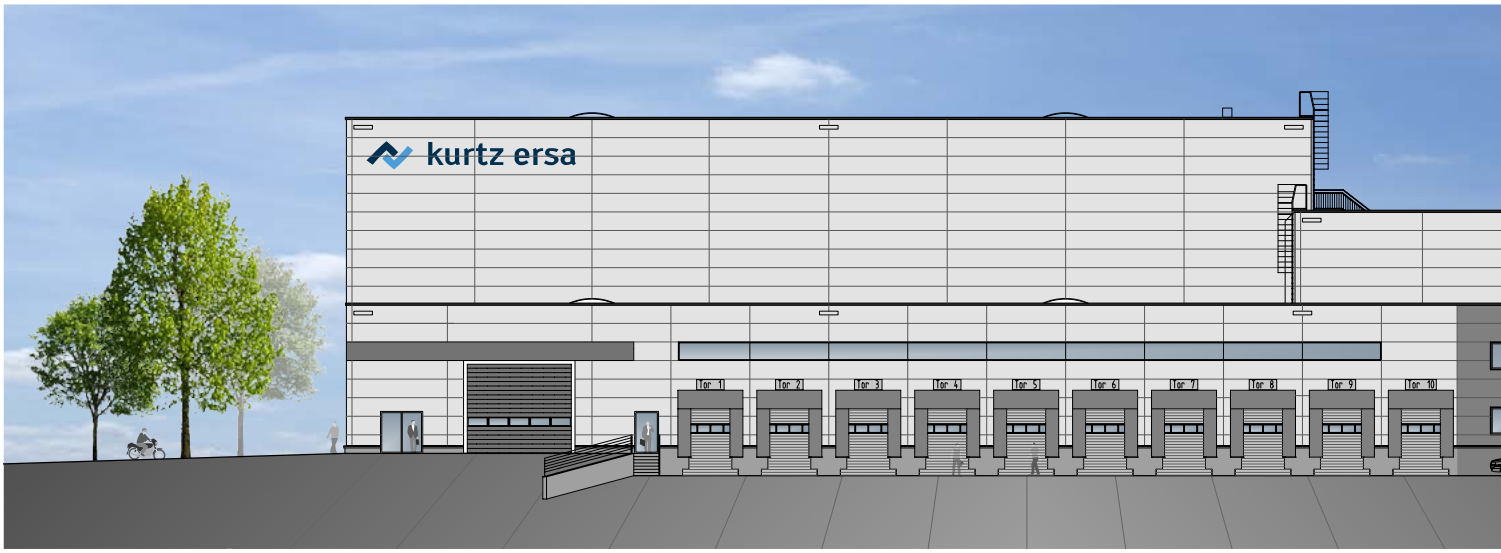


left: CEO Rainer Kurtz explains the reasoning behind the new construction and provides information on the planned course of the project.

right.: Klaus Thoma, Mayor of the Kreuzwertheim Administration Association, is delighted about Kurtz Ersa's commitment to the region and proud of the enormous speed with which the site was developed and planning permission granted by the local region.

Groundbreaking ceremony in Wiebelbach for EUR 15 million project

Kurtz Ersa builds central warehouse

Following a year-long planning phase, those responsible in the Kurtz Ersa Group, and all those involved in the project, met up at the end of April to break the ground for the central warehouse in the Kreuzwertheim-Wiebelbach industrial estate. Close to the company headquarters, the implementation of a construction project with an investment volume of around EUR 15 million is underway; commissioning is planned for summer 2018.

CEO Rainer Kurtz interpreted the fact that the clouds parted and at least the odd ray of sunshine made its way to the site as a good sign for the next major Kurtz Ersa construction project.

6,000 m² warehousing area, 1,000 m² administrative area

With a width of 77 meters, a depth of 96 meters and an exterior height of 18 meters, an impressive building is taking shape with 6,000 m2 warehouse area and 1,000 m² administrative area. In addition to the erection of the building's shell, the interior also has to be meticulously planned and structured. This demands a logistic tour de force; ca. 38,000 articles and total unit numbers of 9 million have to be moved – the future central warehouse provides 32,000 storage areas in the fully-automatic small parts warehouse, 3,000 pallet spaces in the wide-aisle warehouse and 3,000 places in the tray warehouse. Subassemblies are assembled in the integrated production areas and then stored as such, delivered to the various Kurtz Ersa plants or directly to the customer. Once the building has reached the complete stage of expansion, 70 staff will look after its smooth running. "In this way, we are creating urgently-needed production capacity at the Kurtz GmbH, Ersa GmbH and Kurtz Eisenguss operating sites. In addition, only one third of the 68,000 m² large site has been built on so far so that we still have additional reserves for possible expansion in the future," said Kurtz Ersa CEO Rainer Kurtz, on the occasion of the groundbreaking ceremony. Nor did he fail to thank the local public authorities and the participating banks for the very good cooperation and the investment-friendly climate in the run-up to the groundbreaking. And added: "We are also pleased that, with general contractor Riedel Bau from Schweinfurt and the architect's office Menig & Partner from Rottendorf, we

have been able to secure the services of regional building partners. I therefore wish the Kurtz Ersa central warehouse building project a smooth course of events and every success – Glück auf!" Kreuzwertheim's mayor, Klaus Thoma, was also pleased that it was possible to smooth the path for this project so swiftly: "With this building project in Wiebelbach, Kurtz Ersa, as a global player and major employer, declares its commitment to the site and the local region – conveniently located in transport terms, without negatively impacting on the town. The necessary steps leading up to planning permission were dealt with in record time and a productive atmosphere by the local authorities and the District Office. My thanks go out to all those involved. As the mayor of Kreuzwertheim, I hope the central warehouse project will be achieved successfully and free of accidents!" ■

New Kurtz Ersa Image Film

"And … action!" was the instruction from the film crew to be heard at all kinds of different locations in the Kurtz Ersa Group in spring. The three-strong film team was out and about on a mission to produce the new Kurtz Ersa image film. With "speed" as a leitmotiv, the film shows exactly what Kurtz Ersa stands for: innovation, drive and high-tech processes. With a range of scenes and fast editing sequences the clip now shows in just over 2 minutes what it is that characterises Kurtz Ersa. We hope you enjoy watching it! ■

"DER BACCHUS" is Kurtz Ersa HAMMERWEIN 2017

In mid-March, the HAMMERWEIN 2017, was chosen in the Schwarzer Bock on the Eisenhammer site. For the fourth time, guests at the Kurtz Ersa HAMMERWEIN wine sampling decided which of the six nominated wines achieved the greatest number of points in the categories bouquet, taste and harmony. The winner – and therefore, for the next year, holder of the title Kurtz Ersa HAMMERWEIN – was "DER BACCHUS". Characteristics: old vines, dry, 2015 vintage from the vineyard Weingut Augustin, Sulzfeld. With the Bacchus, the fourth grape variety has asserted itself in the fourth event of its kind. To date, Silvaner, Müller-Thurgau and, last year, the Scheurebe grape took the Kurtz Ersa HAMMERWEIN title. ■


kurtz ersa
Wein aus deutsch
Wein aus deutschen Landen
Kurtz

Kur(t)z Gesagt – thank you, Walter!

Last year, the Kurtz Ersa Magazine celebrated its 25th birthday. The first edition appeared in 1991 under the name "Kurtz Gesagt" with the title "Amerika". Since then, the role of initiator, editor and responsible officer within the meaning of the German Press Law has been occupied by Walter Kurtz, who has quite literally written the success story of our periodical. He has been author, mentor, idea generator and motor of our magazine for customers and business associates. With his characteristic very kindly approach, Walter Kurtz got one edition after the other ready for publication, always supported by a highly-motivated editorial team. Walter Kurtz made his distinctive mark on many an editorial meeting – innumerable anecdotes from those years could be reported, such as the convivial meal of trout from the Eisenhammer's water channel, caught and grilled ourselves, or the outing to the Zillertal with the special Walteresque skiing course. In addition to Walter Kurtz's enormous professional know-how, it is the example of these stories, in particular, that convey the corporate culture of Kurtz Ersa as it is lived out.

The Kurtz Ersa Magazine has long become firmly established in our corporate communication. The wealth of positive feedback shows us that we have got the concept right. Reports on special customer projects communicate the benefits of Kurtz Ersa products, in keeping with the corporate vision: "Our technological lead optimises our customers' manufacturing processes. In recent years, this has been augmented with an online edition (www.ke-mag.com) and more detailed information. With 10,000 copies dispatched in German and English, the Kurtz Ersa Magazine, which emerged as a start-up on 1991, had become a constant in the Kurtz Ersa Group.

After a quarter century, Walter Kurtz is now handing over his "baby" into new hands. The management, the entire editorial team – in particular Tilo Keller as one of the founding members and Thomas Mühleck as "heir" to the responsibility for the Kurtz Ersa Magazine – thank Walter Kurtz most warmly for the most sensational of times!

Dear Walter – thank you for your communicative dedication and, to quote that old German miners' greeting: Glück auf! ■

Selective soldering: possibly record-breaking cycle time

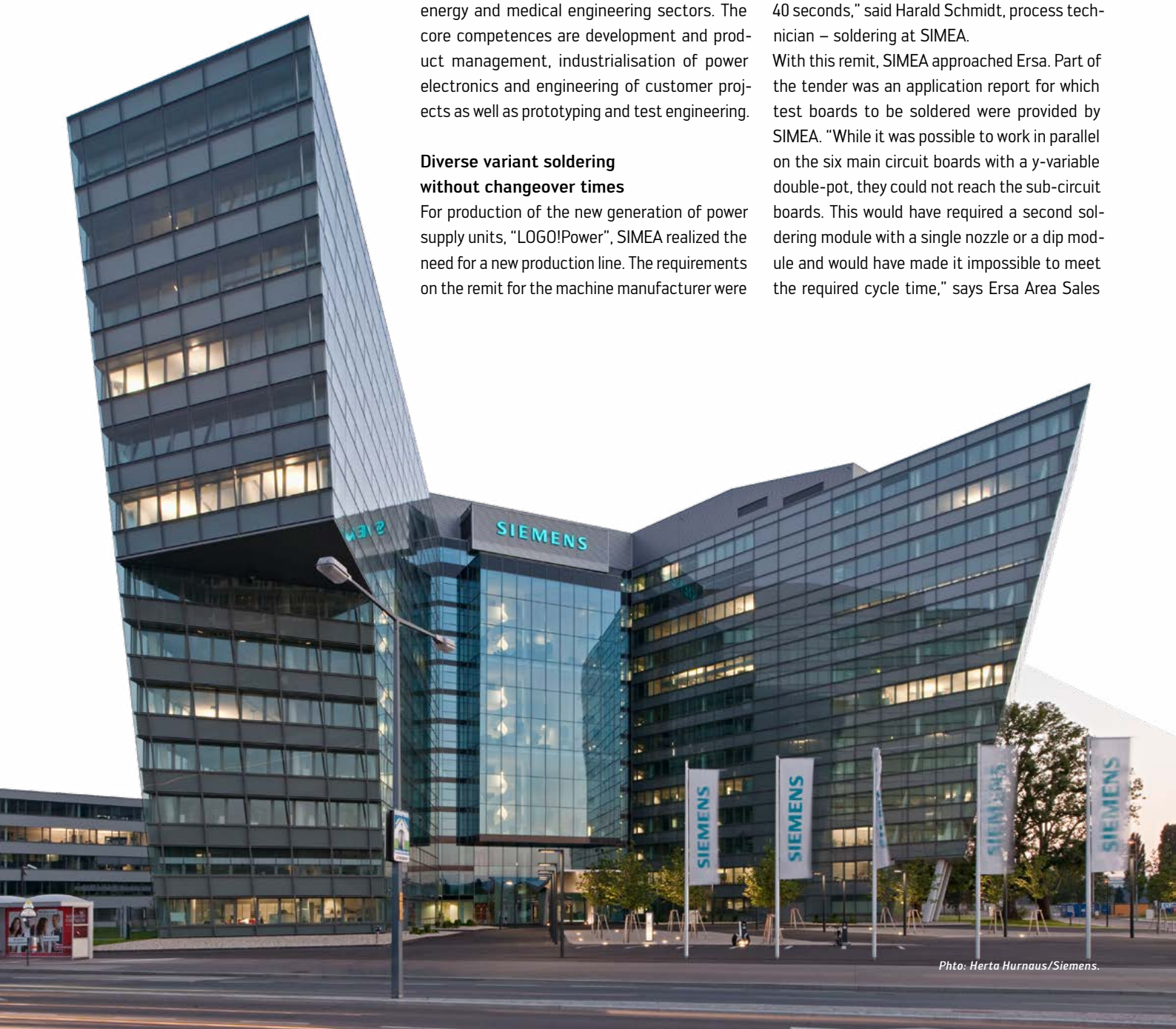
For over 165 years, Siemens has been synonymous worldwide with technical performance, innovation and quality – in Austria for over 135 years. The core business concentrates on electrification, automation and digitalisation. Ersa recently installed its first plant there: a VERSAFLOW 4/55 with VERSAFLEX selective soldering module.

In Austria, the business division Siemens Industrial Manufacturing, Engineering and Applications, SIMEA, is the dynamic hub for development, engineering and manufacturing of PCBs, devices and components. One of the main points of focus at the Vienna site is industrial power supply. There, and in the Sibiu site in Rumania, Siemens produces customised power supply systems and components, such as the regulated direct power unit SITOP, which are then used worldwide in automation, drive and building technologies as well as in the wind energy and medical engineering sectors. The core competences are development and product management, industrialisation of power electronics and engineering of customer projects as well as prototyping and test engineering.

Diverse variant soldering without changeover times

For production of the new generation of power supply units, "LOGO!Power", SIMEA realized the need for a new production line. The requirements on the remit for the machine manufacturer were therefore formulated as follows: "Soldering diverse variants without changeovers, in the required cycle time." The challenge lay, on the one hand, in the layout of the boards – there were three different circuit board panels, all differing in terms of size and proximity of the connections. Every panel consists of six main circuit boards and six sub-circuit boards, and the panels are not in parallel. "The sub-circuit boards are set at an angle of 90° in the panels and are later soldered onto the main circuit boards. The second challenge was the required cycle time of 40 seconds," said Harald Schmidt, process technician – soldering at SIMEA.

With this remit, SIMEA approached Ersa. Part of the tender was an application report for which test boards to be soldered were provided by SIMEA. "While it was possible to work in parallel on the six main circuit boards with a y-variable double-pot, they could not reach the sub-circuit boards. This would have required a second soldering module with a single nozzle or a dip module and would have made it impossible to meet the required cycle time," says Ersa Area Sales



Phto: Herta Hurnaus/Siemens.

VERSAFLOW 4/55, 100% geared to flexibility: Ersa Service Technician Stefan Brauner (black coat) with SIMEA process technician Harald Schmidt (centre) and Ersa Area Sales Manager Mark Birl (back).

Manager Mark Birl. It was therefore decided that the problem would be tackled with the VERSAFLOW 4/55 plus VERSAFLEX. The inserted pins fitted and there were no solder bridges, even with small pin interspaces!," summarises Mark Birl. The results of the soldering test were sent off to SIMEA. "This application report was crucial for the decision in favour of Ersa," says SIMEA process technician Harald Schmidt. And continues: "Only VERSAFLEX achieved the required cycle time per unit. The two tasks for the circuit board panes – pre-soldering of the sub-boards and soldering of the sub-boards to the motherboards – are simply not possible in one cycle with any other soldering system."

Double pots working completely independently

The two solder pots on the double soldering module are mounted on independent axes. This allows VERSAFLEX to be used in parallel operation but also in an asynchronous mode with both pots working independently of one another – this really came into its own in the project. Because, as each pot is mounted on a separate axis system, x-, y- and z-direction can be set completely individually. A further crucial factor: the software with simple operation and programmability – the parameters for each component on the board, such as flux application, wave pressure or soldering speed can be individually adjusted. "I am no longer forced to handle the entire product with an average value. This gives me greater flexibility and reduces soldering errors," says the THT expert. The software calculates the optimum paths for the nozzles and shares the solder between two soldering nozzles. The pots then do their jobs completely independently of one another – result: the shortest possible cycle times and increased throughput.

Smart features bring efficiency and productivity

With regard to process reliability and zero-fault production, Ersa also scores with the VERSAFLOW: A set-up verification feature ensures that the right soldering tool has been attached. Process cameras monitor soldering wave height and nozzle wetting; if required, the correction process is carried out automatically. The conclusion from SIMEA process technician Harald Schmidt: "With Ersa, we have chosen the ideal partner: The cooperation is uncomplicated and very pleasant, reaction times extremely short, and we receive very competent advice. The plant is reliable in operation and delivers top soldering quality. The VERSAFLEX selective soldering module is the ideal solution for us: We manage without a second soldering module or a high-cost dip solutions. The ERSASOFT 5 machinery software with CAD Assistant 4 is a true highlight – making programme generation or adaptation really easy; and it even works while production is ongoing!" Positive indications that the first SIMEA machine projects will be followed by others … ■

Two NPI Awards for Ersa

In mid-February, Ersa was distinguished with two NPI Awards in the framework of the IPC APEX EXPO trade fare in San Diego (USA): Awards went to Ersa in the categories "Repair & Rework" for the high-performance rework system HR 550 and "Selective Soldering", represented by the extremely flexible VERSAFLEX selective soldering module. ■

A great reception for the new trade fair concept!

In mid-May, system supplier Ersa appeared in an unusual way at the SMT Hybrid Packaging in Nuremberg: instead of taking only a percentage of the comprehensive Ersa range to the city's trade fair site, it was decided to do away with physical examples altogether and instead present the whole product portfolio digitally. "Our TIME4YOU trade fair concept is proving a complete success – this was the first time we as a mechanical engineering company have appeared at a trade fair without machines, soldering stations or reworking systems. This enabled us to devote time to what we at Ersa consider most important: our customers, whose requirements are becoming ever more individual in nature and who as a result require perfectly tailored solutions. Both our regular customers and other interested parties appreciated our approach and gave it an excellent reception!" says Ersa general sales manager Rainer Krauss at the end of the SMT.

The Ersa stand provided the ideal environment for intensive expert conversations, and in all the areas set aside for meetings, customers and other interested parties had digital access to the whole Ersa product range, with directly relevant content only a few clicks away. This content – videos, presentations, brochures or live broadcasts from the Ersa applications center direct to the trade fair – was widely accessed, at all times accompanied by expert guidance and advice from Ersa staff. "We were able to talk about the whole portfolio of what we provide and present it in detail, to both SMEs and global players dealing in large-scale manufacture. We were able to configure our demonstrations individually, showing attendees how our products and systems can help to increase flexibility and productivity. Of course in this context, the talk frequently turned to our high-performance selective soldering module, VERSAFLEX and HR 550, our high-performance rework system," Rainer Krauss says. Many of the conversations at the Ersa stand led to firm enquiries – back in the office the conversations have been continued and intensified, enabling customers to be offered the optimum complete solutions for their requirements. ■

smthybridpackaging

Nuremberg, 16 – 18 May 2017

Ersa presents new POWERFLOW

High-capacity wave soldering system with flexible solder bath technology

Electronics production has to keep pace with a fast increase in requirements in order to continue to offer efficiency and flexibility – at maximum quality and at competitive prices. The high-capacity Ersa wave soldering systems ensure a top level as regards quality, costs and supply service on the customer's side on the basis of absolutely stable processes and reproducible parameters. Ersa has extended this segment by a new system with an attractive price/performance ratio: the high-capacity POWERFLOW wave soldering system – technologically state of the art with process-relevant components made in Germany such as motors, controls and nozzles, finally assembled at the Chinese Kurtz Ersa production location in Zhuhai.

Individually configurable: POWERFLOW concept

The standard of a modern wave soldering machine nowadays includes a spraying system – just like POWERFLOW. In the area of fluxers, Ersa provides numerous innovative solutions – no matter which ones you decide on, they are all system-secure and economical with a view to flux consumption and processing speed. With the intuitive ERSASOFT, product-specific spraying areas can be defined graphically in the POWERFLOW, which has a positive influence on the flux consumption. Like the other members of the POWERFLOW family, the new machine can also be set up differently, depending on requirements: alongside medium and short-waved infra-red radiation modules, convection heaters are also optionally available for pre-heating. Short-waved radiator cassettes are to be recommended for mixed productions as a result of their dynamic reaction. Convection modules finally show their strength when large, high-mass modules have to be heated on the fitting side or temperature-sensitive modules which may not be overheated in the pre-heating process are in use. The POWERFLOW concept fulfils all these requirements with an individually configurable pre-heating concept which can be extended modularly. In the soldering module, the POWERFLOW stakes on the tried and tested Ersa double wave soldering technique, on the basis of which the soldering system has been designed completely new and adapted in the direction of market requirements. With three solder nozzle combinations, the user-friendly welding system enables optimum alignment of the process to the user's requirements – for example, the long moistening time and the high wave height of 16 mm are convincing here, with a nitrogen hood being available optionally. The Ersa experts will be pleased to advise you on how to configure your ideal wave individually! ■

As you need it:

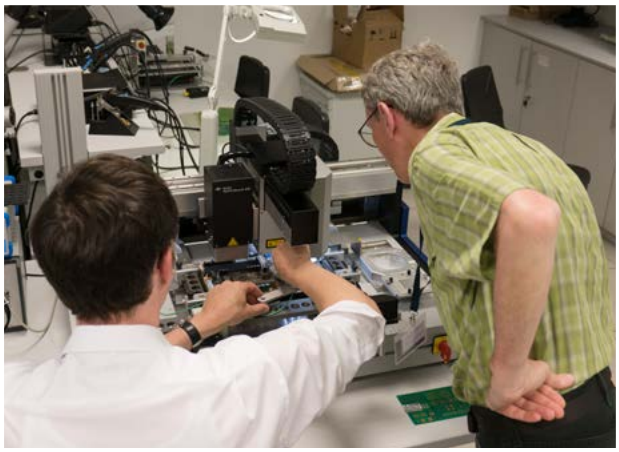
Tech-Days at Ersa!

At Ersa we are proud of our harmonised soldering philosophy that enables us to provide comprehensive systems advice for every aspect of soldering. For Ersa customers this translates into incredible added value in their production processes, whether with regard to applications, complex process details or even TCO. The principle extends far beyond hardware, since Ersa also offers seminars on know-how and process technology, as well as individual technology days, all of which are practically based and individually tailored to customers' requirements. Using the example of the "Enics Tech Days", KEM outlines the typical course of the Ersa Technology Days.

At the invitation of Ersa, project and process technology engineers from Enics came to Wertheim at the end of May for a technology seminar and discussion. The focus of the Enics Tech Days, attended by Enics experts from all over the world, was on the use of optimised technology and the necessity of configuring machinery for future requirements. Modern EMS service providers such as Enics AG, which is one of the world's biggest companies in electronic production with some 3,200 employees, need to ensure the greatest possible production flexibility in order to be able to satisfy all of their customers' requirements speedily. "The unit production costs are also constantly under examination. This requires high machinery modularity and maximum flexibility, taking account of the required production throughput," says Ersa general sales manager Rainer Krauss during the Technology Days. Several Ersa machines are in daily use for production at each of the Enics sites; the modular construction has ensured that Ersa systems continually satisfy the specific requirements, again and again.

Optimum implementation of production requirements

Building on this, and in combination with an introduction to the latest new developments in all areas of soldering, the talks were accompanied by some interesting discussions. Immediately afterwards, hands-on demonstrations in the adjacent Demonstration and Applications Center showed how production requirements could be satisfied to the best possible effect. Participants made good use of the opportunity to examine the individual pro-

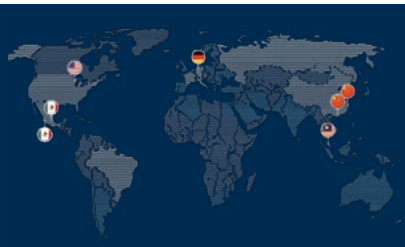


Top: The Enics Tech Days 2017 included a tour of where it all began for Kurtz Ersa: the forge hammer of 1779.

Small left side: Visual representation of the high-performance Ersa tools.

Small right: Hands-on demonstrations at the Ersa applications center.

cesses in detail and to try them out for themselves. For example, with the VERSAPRINT stencil printer, the difference between 2D and 3D process control systems was explained, and a demonstration was given to show which technology was best used when. The focus of the reflow soldering session was on process gas cleaning using Residue Terminator and the VOIDLESS process for the drastic reduction of voids. The selective soldering technology presentations concentrated on the VERSAFLOW 4/55 and the recently developed VERSAFLEX module, with additional attention paid to the VERSASCAN selective module for component control and the VERSAEYE quality assurance system. Finally, under the theme of rework, the replacement of defective components was covered, since the reworking of components after years of use is not carried out at Enics. The Enics Tech Days participants were clearly surprised by the evening programme – after a visit to the Kurtz Ersa Hammermuseum and forge hammer in Hasloch, the project managers and process engineers were given the opportunity to have a go themselves at forging iron in the traditional way, under supervision, before a meal at the nearby Schwarzer Bock. After two informative days, Ersa said farewell to the satisfied Enics participants who, equipped to the best possible extent with the very latest technological know-how, would now and in future be able to shape their projects and processes to even more optimum effect. ■



Ersa Technology Days

The perfect infrastructure of the 7 application centres worldwide offers ideal possibilities to clients, in order to level up their soldering process theoretically and practically – individually tailored to specific demands. Ask for your personalized Tech Days at Ersa now – via E-Mail (info@ersa.de) or by telephone (+49 9342 800-0)!

Headquarters of electronics manufacturer Titan Time Products Limited in Goa, India.

Best Practice: Titan + Ersa

Maximum precision for all!

Titan Time Products Limited offers its customers a wide range of electronics manufacturing services in the medical, automotive, industrial controls, instrumentation and aerospace industries. The company is a fully owned subsidiary of Titan Company Limited and part of the Tata Group. Titan has recently incorporated an Ersa reflow soldering plant of type HOTFLOW 3/14 in its electronic production plant.

Goa was a Portuguese colony for 450 years, before its annexation by India in 1961. The coastal region on the Indian Ocean then became a dream destination for backpackers. None of this is important to electronics manufacturer Titan, where the emphasis is firmly on high-tech production. Titan's core competence is the production of high-quality circuit boards, made for leading European and US companies with the catchphrase "in pursuit of excellence". The Titan standards of outstanding quality are achieved thanks to production using the very latest technology and certification according to ISO/TS 16949 and OHSAS 18001.

Precision electronics production as standard

After its foundation in 1992, Titan Time Products Limited concentrated on the production of high-precision boards for quartz watches; now, the Titan team also undertake wire bonding in clean-room conditions. "Our strength lies in high-precision electronics manufacture – for 25 years we have been very successful in our drive to ensure the high quality of our products," says Shireesh Phal, Senior Manager for EMS Production at Titan. With small, medium-sized or large batches, and possible high product mixes of tiny to very large circuit boards, Titan develops products for its customers that never compromise on quality. Key applications include the production of automotive sensors, industrial control systems, high-frequency circuit boards and medical technology. When it comes to miniaturisation and precision in soldering, the Titan team always keep up with the latest technological developments, and their products repeatedly offer impressive testimony to their well-founded know-how. Fast set-up and improved quality are extremely important to Titan in the electronics manufacture. To this end, the company invests continually in the latest technologies, in order to maintain and expand its position as a leading Indian electronics manufacturer. The climate in India means precisely controlled temperature and humidity conditions are needed for successful electronics production – and in addition to this, Titan insists that there should be no environmental pollution.

TITAN TIME PRODUCTS LIMITED

- Founded in 1992
- Sectors: the medical, automotive, industrial controls, instrumentation and aerospace industries
- Headquarters: Goa, India
- Workforce: 170 employees

Satisfied with their decision to invest in the Ersa reflow oven: Titan employees Dattaprasad Patil and Shireesh Phal with Ersa Area Sales Manager Christian Ott (centre).

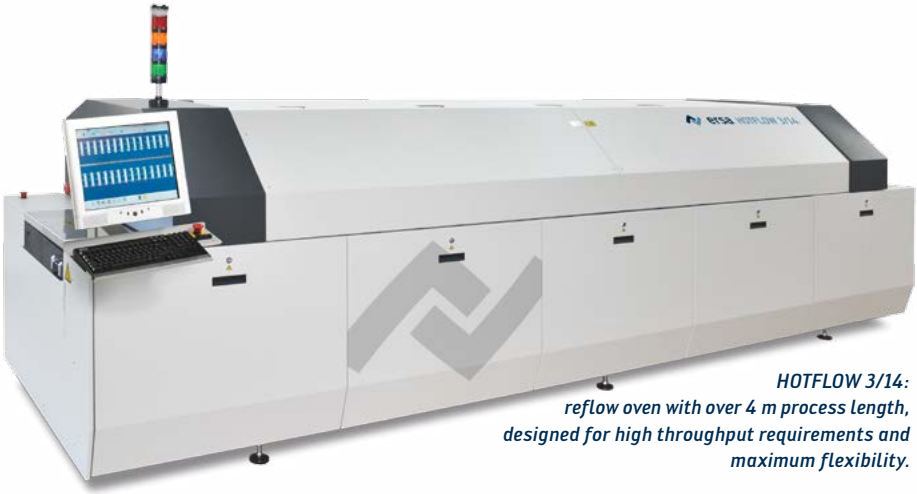
Ersa Area Sales Manager Christian Ott (right) and Titan Senior Manager for EMS Production Shireesh Phal at the HOTFLOW 3/14.

Ersa soldering system for higher throughput

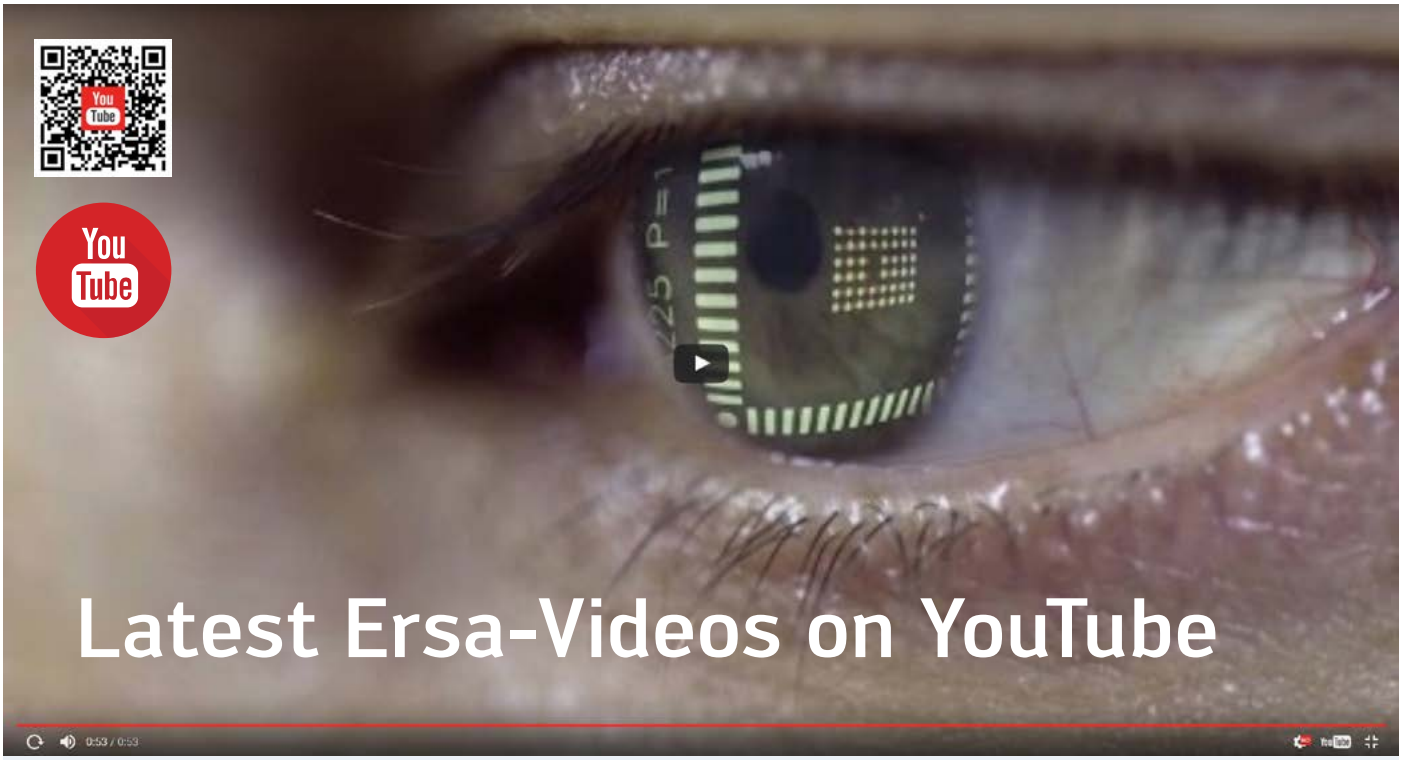
In recent years the growth curve of Titan's business has enjoyed dynamic development, enabling the company to expand its machinery with the addition of a reflow soldering system. The "wish list" given to Ersa by Titan included aspects such as optimum temperature transfer for printed circuit boards, and the intelligent control of energy management, cooling and process gas cleaning. "During the evaluation phase, Ersa soon appeared on our radar because of the company's in-depth expertise in electronics production equipment. We were very impressed by how open and skilled the Ersa service engineers were when explaining the system features of the soldering machines during the test – a factor that was as crucial as the machine's performance for us," says Shireesh Phal. Titan also had its own experience with Ersa products: Some Ersa soldering stations and soldering irons were already in use for manual soldering processes.

Faster switch between O_2 and N_2

The Ersa reflow soldering system scored highly with features such as "on the fly" maintenance for increased machine availability, Ersa Process Control (EPC) for continuous process monitoring and Ersa Autoprofiler for immediate temperature profiling. "We decided on the Ersa reflow oven because our mix of techniques also includes nitrogen-based soldering – for this, Ersa offered us a unique option with the HOTFLOW 3/14 that enabled us to switch easily between O_2 and N_2," says Shireesh Phal. The third-generation HOTFLOW 3/14, available since 2015, sets the standard for the industry in terms of productivity to space ratio, substantially increasing productivity through double to four times the transport options – in India, too. With the Ersa HOTFLOW 3/14, Titan can now offer its customers two independent, fully automated SMT lines for flexible production. At Titan they are particularly proud of their electronic capsules used in the diagnosis of malaria and tuberculosis – a method by which patients can be examined in villages in India without the presence of a doctor, and then advised over the Internet. "This requires a special temperature profile, for which our special heat transfer system has proven invaluable, contributing to saving lives," says Ersa Area Sales Manager Christian Ott, who was responsible for establishing the business relationship with Titan. If Titan's business continues to develop as it has recently, the first Ersa system could soon be followed by another. ■



HOTFLOW 3/14: reflow oven with over 4 m process length, designed for high throughput requirements and maximum flexibility.



Ersa MACHINES

Ersa TOOLS

Ersa REWORK

Variety of Ersa's world of Electronics Production Equipment in video clips

The Ersa YouTube channel sums up the unique and comprehensive range of products – from machines to soldering tools, rework and inspection the user gains an interesting insight into Ersa's world – useful tips for soldering processors complete the picture of the video clip range. Subscribe now and miss no single Ersa video!

Kurtz Service is closing ranks

In early May, Kurtz GmbH organised a two-day international service meeting with the people responsible for service from China, the USA and Russia in the manor house in Hasloch – directly opposite the Eisenhammer, root and origin of the Kurtz Ersa group. The strategic objective was: coordinate and expand the worldwide portfolio in service. The following focal points were presented and intensively discussed in various workshops:

- new service products fulfilling the customers' requirements and possibilities of implementation on the individual markets
- training, further training and cooperation of the various global service organisations plus central control
- extension of the replacement part business by interesting products with a view to availability combined with attractive, globally competitive pricing
- joint agreements and assurances with a view to the next steps

At the event, it was a question of the alignment for a joint global appearance of Kurtz Service and the design of products and services for the various markets – each organisation presented its individual requirements for this. "With the new joint standards, we in the Kurtz Service team want to achieve possible unplanned standstill times being processed within 24 hours of reporting by the end of 2019 – and also remedied as far as possible!", emphasised project manager Michel Reinhart.

At the close, all the attendees praised the open exchange of information and the cooperation in the workshops, which were supported by the Barkawi Consultant external consultancy company. Likewise, use was made of Barkawi's international experience in the definition of new products. Despite the tight schedule and the numerous topics, there was still time to pay a visit to the Hammermuseum and to attend a forging demonstration. Conclusion: on balance, a very successful event, which helps Kurtz Service close its ranks internationally!

Kurtz low-pressure casting machines

Modern suspension components – all over the world!

The Fagor Ederlan Group is the leading supplier of overall solutions for suspension and powertrain components for the automotive industry. Their know-how not only covers casting and machining, rather they are experts along the entire value creation chain. As well as providing innovative solutions, Fagor Ederlan has more than 3,500 employees worldwide, thus meeting the requirements of a global player in the automotive industry – thanks to manufacturing plants in all key regions, the company is close to customers all around the globe.

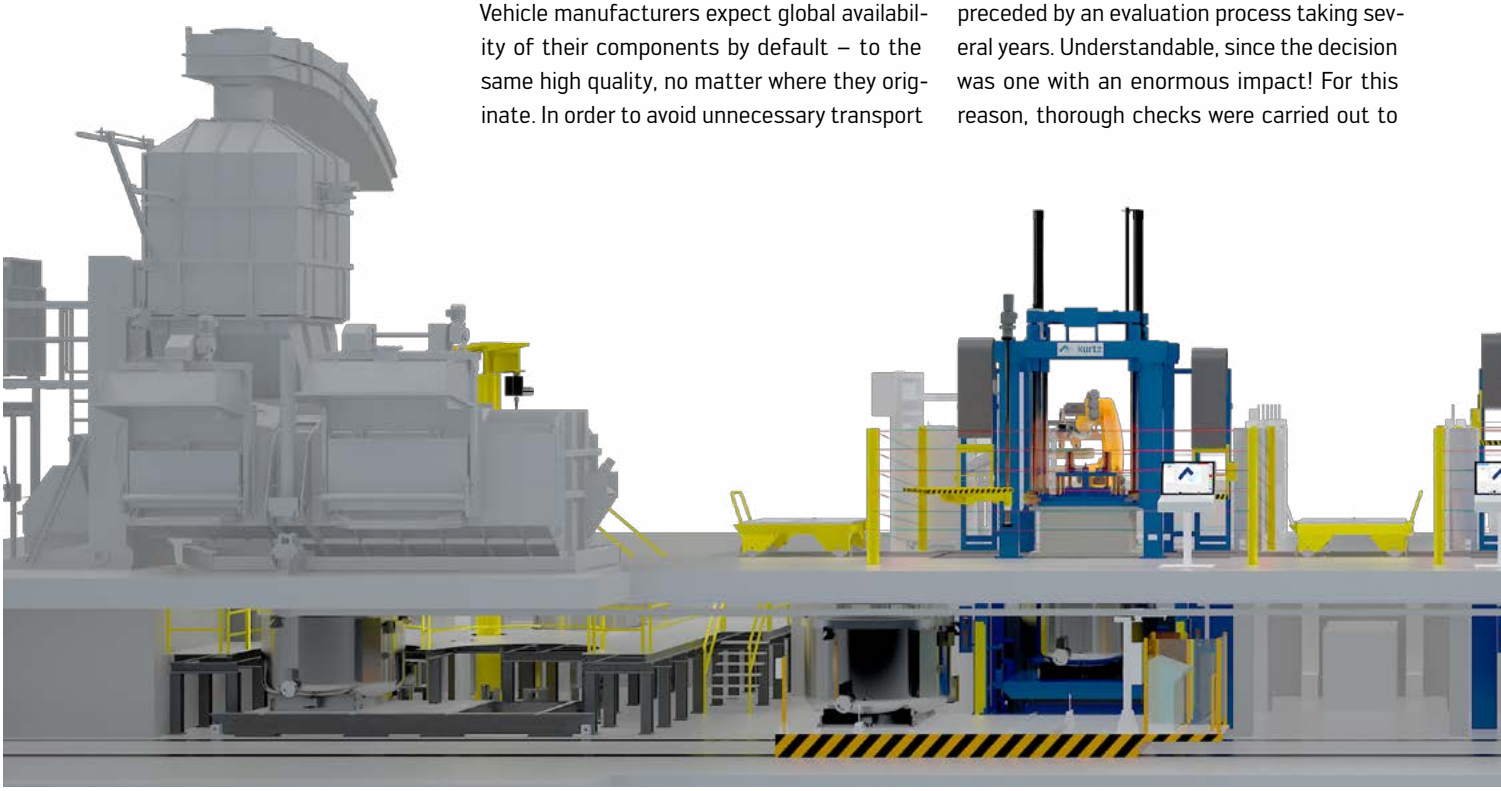
Suspension components are among those under the most strain in a vehicle. As safety-related components, they must never fail under any circumstances. In addition, "lightweight" requirements apply here too: the same or even higher component stability despite reduced weight. This is achieved on the one hand by material saving, on the other with the aid of hollow casting technology, by casting round and subsequent removal of sand cores. The entire branch has enormous potential for growth, particularly in the field of modern, lighter weight suspension components. The ongoing development towards minimisation of consumption and CO_2 emissions will continue to push this trend. The profitable production of such high-quality cast parts requires top plant engineering – during casting in particular the mechanical properties required can only be achieved by observing various general conditions. The following basics are necessary: good molten material low in oxides and hydrogen, low-turbulence mould filling combined with a purposeful, high-power solidification of the parts.

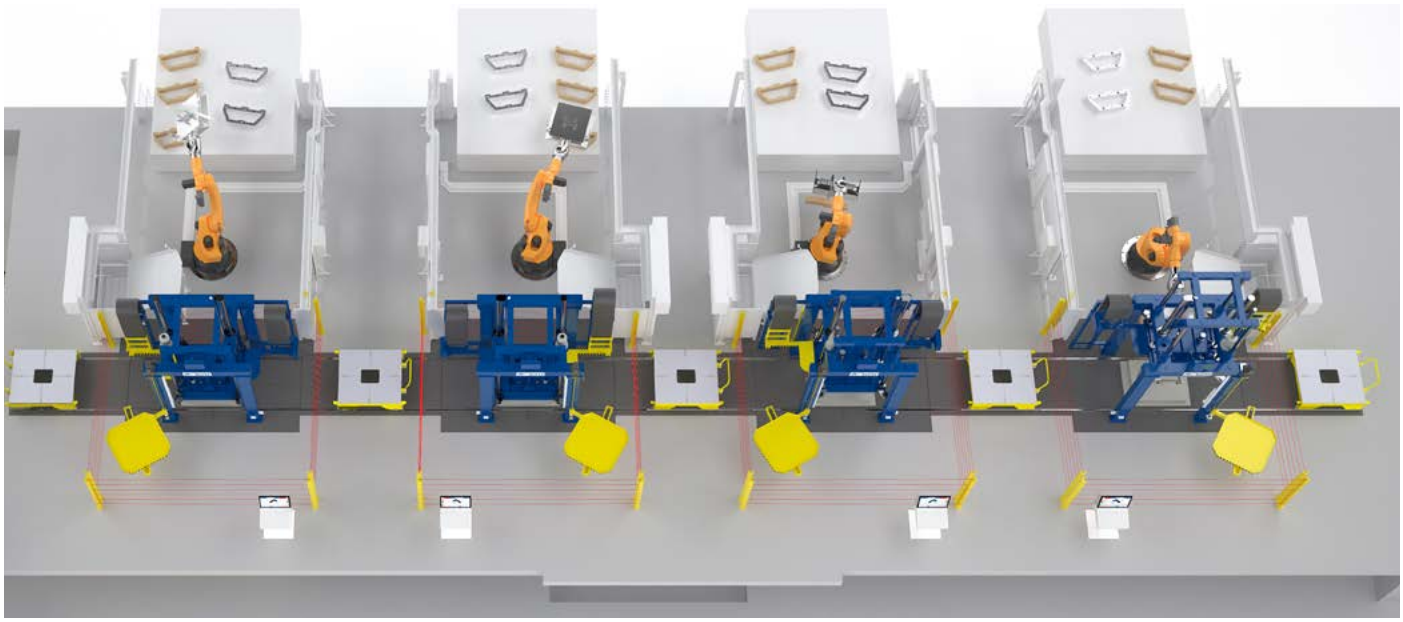
Local production in key markets

Vehicle manufacturers expect global availability of their components by default – to the same high quality, no matter where they originate. In order to avoid unnecessary transport costs, import duties and handling, vehicle manufacturers now manufacture their products directly in the important main markets. The same applies to suppliers – which means casting must be done in the direct vicinity of the customer. To meet all these requirements, Fagor Ederlan decided to supplement production locations all over the world or to modernise existing locations and equip them all to the same standard.

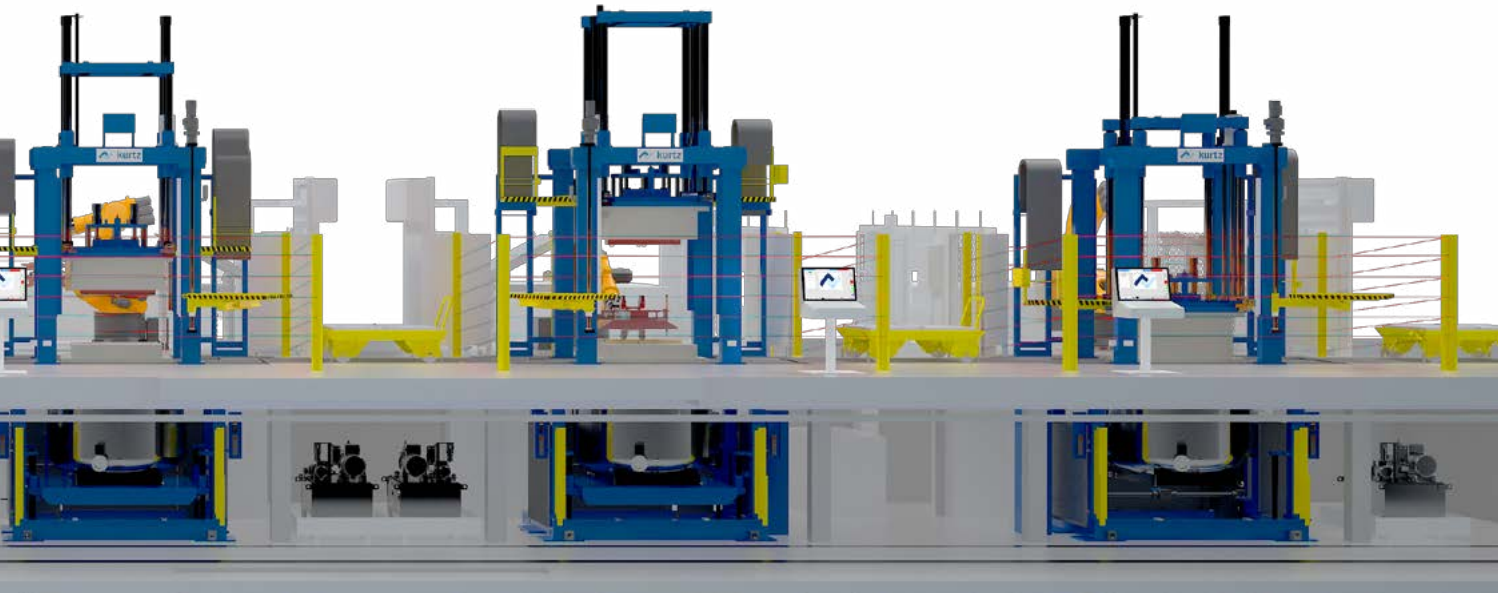
Check things out thoroughly before entering a long-term commitment

The decision in favour of a system supplier was preceded by an evaluation process taking several years. Understandable, since the decision was one with an enormous impact! For this reason, thorough checks were carried out to





see which company could be trusted with this important task. Fagor Ederlan already had an older Kurtz low-pressure casting machine in operation at its main Eskoriatza plant in the Basque region, but this was not cutting-edge Kurtz technology specially designed for suspension components. Numerous product meetings took place and visits were made to existing customers all over the world to gain an impression of the capabilities of Kurtz machines and the related support. As experienced manufacturers of casting machines, the Kurtz developers design the low-pressure technology to meet these requirements exactly: The large pot furnaces guarantee maximum flexibility and economy – permitting the casting of six stub axles with only one shot, for example. The Kurtz furnace and shuttle technology results in top-quality molten material, which can then be cast with low turbulence using the best pressure controller on the market. The gravity die casting method developed especially for Kurtz and optimised over the years takes care of the rest: fast solidification is a further guarantee of best mechanical properties and also leads to significantly reduced cycle times. In a nutshell: more good components in less time means more profit for the user. Thanks to the reference visits to existing customers, Fagor Ederlan found out at first hand about the outstanding performances the Kurtz systems deliver under real customer operating conditions. At the same time, the Fagor Ederlan team also had the opportunity to see for themselves how the Kurtz support network works all over the world. Delivering a machine to China, for example, is not difficult – what is more difficult is looking after this machine on site, carrying out service work and supplying spare parts as needed. Thus alongside machine performance, it was at least as important for Fagor Ederlan to find out that its future machines in Mexico and China will be in good hands. At the end of the day, the low-pressure expertise gained over decades combined with the global set-up had Fagor Ederlan convinced – and got the Kurtz team the order. We would like to take this opportunity to thank the whole Fagor Ederlan team for the trust they placed in us and the extremely positive cooperation. We are looking forward to more joint projects in the future!



Strong together – even across large distances!

Zhejiang VIE Science & Technology Co., Ltd. is a leading supplier of automotive parts for research and development and also manufacturer of motor vehicle chassis control systems for passenger cars and commercial vehicles. For example, the VIE products include the front and rear wheel suspension system, vehicle electronics control systems, pneumatic and hydraulic braking systems, clutch operating systems and manufacture of plastic parts for renowned Chinese automotive manufacturers. Already award-winners as best suppliers a number of times, VIE has additionally been assessed the most influential brand in China in the mechanical industry.

Not long ago, VIE expanded into the areas of wireless charging, driving assistance systems and electrical motor brakes and is further extending its development there. Kurtz has been holding discussions with VIE for some time now, the contract and the joint project being fixed at the Metal & Metallurgy China 2016. As a firm with a future prospective, VIE has decided to produce demanding aluminium cast parts for the automotive branch. VIE started directly with "coreless frames" – and was thus able to generate a commission for the local market for these demanding body parts. The objectives and claims of VIE were challenging, as the frames ought to be cast directly coated twice – not a standard for such large parts. Due to the requirements, only the FSC casting line could be considered, albeit directly with innovations. Up to now, size 18-16 has been standard with Kurtz, which was borderline for the large double mould for the production of the frames. For this reason, following joint coordination, a decision was made for the new size 22-17 with more clamping area for large ingots. Alongside the big closing unit of the casting machine with large clamping area, the large low-pressure furnace with coating and use of multiple standpipes was also a key to success. As a standard, a 2,800 kg furnace is used with currently up to ten standpipes. Furnaces are changed practically in the casting machines' off times with the tested furnace shuttle, in order to design the complete line effectively and to keep the production factor high. To fulfil the high quality requirements, the cooling also makes a decisive contribution – for which the system has 64 mixed cooling circuits.

In cooperation with the customer, Kurtz has designed a high-capacity, extension-capable casting line, making it possible for the customer to expend further and thus to invest further in the future. Strong together – this was and still is the motto for this project. Kurtz Deutschland and Kurtz China worked together with the customer on this project – as a team across borders!

Main features, equipment of the KURTZ AL 22-17 FSC casting line

- Furnace logistics through Kurtz furnace shuttle
- Heat-retention and de-gassing station
- Kurtz low-pressure casting machine AL22-17FSC
- Low-pressure furnace, 2,800 kg
- 64 mixed cooling circuits

Moulding Machines enjoy success with customer workshops in Mexico

Kurtz Ersa has been well-known for many years as a provider of complete foundry systems in Mexico, which is an important market for moulding machines due to the high density of automotive manufacturers there. In order to build on its presence in Mexico and pass on its international experience, gained from numerous projects with partners including FAT, Loramendi, Striko-Westofen and Mössner, to customers and other interested parties, in May the Moulding Machines division held two-day workshops in Querétaro und Monterrey. Aimed primarily at participants from the automotive industry, the workshops also attracted numerous Mexico-based motor firms and their suppliers, with employees from management, research and development, planning and purchasing. The focus of both events was on customer-specific solutions for turnkey projects in the manufacture of gearboxes and parts for the structure and drive systems.

Many participants attended specifically for the opportunity, on the second day of the workshop, to benefit from intensive instruction on efficiency increases in the process of casting more complex parts. “Mexico has a very well-developed foundry industry and is one of the most important markets for Kurtz foundry machinery. The low-pressure die casting process, in particular in combination with sand cores, is becoming ever more important for the manufacture of chassis and engine blocks. The main focus of the workshops was on the question of how the manufacture of chassis parts would look in future, and how Kurtz as a general contractor could give its customers the best possible support and equip them for the future. The workshop clearly had the desired effect, as reflected in specific enquiries for new projects,” said Lothar Hartmann, Profit Center Manager for Foundry Machinery at Kurtz GmbH.

Kurtz Particle Foam Machines organises 4th training seminar in Mexico

Kurtz Ersa North America and Kurtz Ersa Mexico successfully organised the 4th training seminar for North, Central and South America in the Mexican town of Playa del Carmen. More than 50 participants and around 35 Mexican, American and Canadian companies from the EPS and EPP processing sectors attended our event on Mexico´s Caribbean coast. Guest partners including Styropek, JSP, Doroteo Olmedo and adidas also took part. The Kurtz Ersa team presented the latest innovations and technologies for EPS and EPP processes, as well as details of technical support and customer service.

At the event, our customers, represented mainly by the company proprietors or members of the top management, were given a number of presentations and had the opportunity to talk directly with the North America or Mexico teams of Kurtz Ersa. A lot of interest was expressed in the innovative Kurtz Ersa technologies, in particular ROTO FOAMER, BLOCK FOAMER, THERMO FOAMER and the new i-CAP filling injector for EPS and EPP.

Kurtz ROTO FOAMER

Optimised helmet production at Yee Fung Group

More and more moulded parts made of EPS and EPP, such as sports helmets, sun visors and rear seat benches, require various metal or polymer inserts to be inserted in the machine and then foamed over. With a standard machine, this means longer cycle times and thus lower productivity, since it cannot be used for production during the insertion process.

Our long-standing customer, Yee Fung Polyfoam Limited / Hong Kong Sports from China, also faced this problem. Hong Kong Sports is one of the largest helmet OEM manufacturers for ski, motorcycle, and mountain climbing and bicycle helmets with production facilities in Sha Jin and Dongguan. The company has been a Kurtz customer for more than 40 years now and produces more than 6.5 million units per year.

For his helmet production, Hong Kong Sports wanted an automatic machine for moulded parts which would make increased productivity and reduced personnel deployment possible, take up less space than a shuttle machine and deliver consistently high quality. Kurtz took up the challenge and, following close cooperation with the customer, the Kurtz ROTO FOAMER 911 was born – the specialist for production of moulded parts with inserts. These are automatic machines for moulded parts with a foam area of 900 x 1,100 mm for processing EPS and EPP which are equipped with a rotating double steam chamber on what is otherwise the stationary steam chamber side. While foaming takes place on one side, the helmet

inserts can be set in place manually – or even automatically in future – on the other. In addition, this machine is flexible enough to be used as a standard machine without inserts.

The first ROTO FOAMER was set up and put into operation at Hong Kong Sports in Sha Jin at the end of February 2017. During the running-in phase, Hong Kong Sports was trained in handling the machine by a German/Chinese Kurtz team made up of process and service engineers, and the ROTO FOAMER was able to be integrated in ongoing helmet production within a very short time. Following the first few months in full operation and positive customer feedback, it can already be said that the ROTO FOAMER is exceeding expectations. This is also indicated by the fact that Hong Kong Sports is already planning to gradually replace older machines by Kurtz ROTO FOAMERs in various sizes, thus further increasing productivity and cutting costs. In the meantime, the second machine in the 911 size is already on its way to China

Shape moulding machine ROTO FOAMER.

Kurtz THERMO FOAMER

Variable Applications

Components made from particle foam (EPP) are seeing ever increasing interest, especially in the automotive sector. The attraction lies especially in the substantial potential for lightweight construction in conjunction with a suitable surface design, thermal insulation and integrated functions such as fixing elements.

Sunshades, roof boxes or helmets – the range of applications for particle foam is widely varied even now. But due to their rather function surface appearance, particle foams were until now mainly used in places where they were out of sight. The possible uses of particle foams can be extended further by combining them with suitable reinforcing materials and/or other processing techniques such as injection moulding or thermoforming. Particle foam composite injection moulding (PVSG©) is the fundamental innovative process that enables a firmly bonded combination of particle foam and thermoplastics to be achieved. Minimised water vapour means that the foaming machines can be integrated into the injection moulding process. Kurtz GmbH has secured the exclusive rights to this patent from the Krallmann Group. On the basis of this we are currently developing a new machine type – the THERMO FOAMER. This project, undertaken in cooperation with Krallmann, also involved Michel Formenbau, who are constructing the tools for the THERMO FOAMER. The aim is to produce a reduced-size door cladding panel to offer a concrete example of the lightweight construction possibilities in the automotive industry, especially electric transport. The stresses on the moulded part are very high, which means that it is essential to ensure dimensional stability and an optimum, even density. This means that, for the THERMO FOAMER an accurate repeat process is essential, and the machine design must guarantee a high level of precision. One special feature of the THERMO FOAMER is the variotherm temperature control of the tool activity that can change from 160 °C to 80 °C. Furthermore, the temperature of the steam chamber is fixed at a constant 160 °C and the steam temperature controlled. The new technology will be introduced at the Fakuma trade fair from 17 to 21 October 2017 at the Krallmann Group

stand. A little later, Kurtz GmbH will present the THERMO FOAMER during the Kurtz in-house trade fair to be held on 16 and 17 November 2017 in Kreuzwertheim-Wiebelbach. For Kurtz GmbH this new project offers a major opportunity to offer its existing particle foam customers a new, innovative possibility and to attract a whole new set of customers – injection moulders!

International Kurtz Sales Meeting

For the end of March, the Particle Foam Machines business unit invited its worldwide sales organisation to the "International Sales Meeting" at the headquarters in Kreuzwertheim. Naturally, the representatives of the Kurtz Ersa branches from China, France, the USA and Mexico were also present. The focal point of the two-day workshop was formed by the products presented at the K-Messe 2016 trade fair in Düsseldorf on the subject of Industrie 4.0. By means of presentations and live demos, the necessary technical knowledge was graphically taught according to the "4.0 READY" motto. Top subjects were interlinking of the individual production machines with a mobile control centre, the BOX FOAMER specifically developed for fish box production, the ROTO FOAMER as an ingenious solution for the production of EPE or EPP moulded parts with foamed-in function elements and the i-CAP intelligent filling injector system. In addition, there were extremely interesting innovations from the new "Automation" area to marvel at. This ensures that Kurtz will continue to provide its customers worldwide with the best solutions. The successful event was rounded off by a joint evening bowling with plenty of fun.

At the conclusion, all the attendees agreed: "We too are 4.0 READY"!

SMART FOUNDRY

Production using the new blast machine begins!

Mission accomplished – this was the announcement the "New Blast Machine" project team were delighted to make in spring 2017 after two years' hard work. It represents another milestone for the SMART FOUNDRY, putting it in a position to blast the full range of parts more effectively and much more quickly. For customers, it means shorter throughput times and improved surface quality.

Following completion of the building construction and roof insulation works by the end of winter, at the end of March the first blast wheels driven by eight turbojet turbines were commissioned. In the new blast machine, up to 16 tonnes of cast items with a maximum cluster diameter of four metres can be blasted. The new blast machine thus replaces the existing machine, the limits of which had been reached due to increasing component sizes and higher surface quality requirements.

Individually adjustable blasting

The new system offers new possibilities for the SMART FOUNDRY to treat complex customer parts as required. Depending on the component design, the eight blast wheels are individually controlled and the time intervals defined for the desanding and blasting process stages. This enables the required surface quality to be achieved for each component on completion of the process time – and fewer resources are used since the blasting material is aimed exclusively at the component.

Greenfield efficiency on a brownfield site

The blast machine was constructed directly adjacent to the existing production plant, in very restricted conditions, so the design of its layout demanded a high level of creativity. In order to achieve maximum capacity with optimum part throughput, a crane sys-

tem was decided upon, enabling a move to a different shed without setting down the cast parts. This enabled the system to be seamlessly integrated into the material flow without affecting the ongoing operations during construction works. If the plant had been established on a greenfield site things could not have gone more smoothly! ■

Strengthening the Kurtz Eisenguss business

The Kurtz Eisenguss underwent a reorganisation on 01.03.2017: Andreas Hecker replaced interim CEO Rainer Kurtz in the iron foundry and since then has been joint chair of the management board together with Graziano Sammati. Carolin Kurtz has been appointed Commercial Manager and Peter Schäfer the authorised representative for casting optimisation. This restructuring will enable the SMART FOUNDRY to achieve the growth objectives it has set itself, while achieving the best possible quality!

Carolin Kurtz, commercial manager, and CEO Andreas Hecker.

A look behind the factory gates!

Experience the function of the Industry 4.0 Foundry in our video clip.

MBW supplies a complex roller conveyer system for Rauch Möbelwerke GmbH

On a roll at Rauch!

In the course of 20 years, MBW Metallbearbeitung Wertheim GmbH with headquarters at the Reinhardshof has made a name for itself as an expert for sheet metal engineering. The customer list includes notable, international companies which regularly order their sheet metal or subassemblies from MBW. With increasing frequency, the job involves much more than just sheet metal processing, so that, more and more, MBW can apply its comprehensive expertise to the entire sheet metal process chain. This was also recognised by Rauch Möbelwerke, numbered among Europe's largest furniture manufacturers, which placed an order for a complete contract manufacturing project with MBW.

MBW Contract Manufacturing

- Service and design
- Welding
- Machining
- Surface engineering
- Assembly
- Electrical installation
- Quality management

The initial contact between Rauch Möbelwerke and the MBW sheet metal experts took place fairly recently – it dates back just a year, to spring 2016. Back then, the inquiry from Rauch Möbelwerke GmbH in Freudenberg am Main related to a comparatively simple roll conveyor without a power unit or steering mechanism. A straightforward order but one which MBW carried out with its customary thoroughness and in top quality. Dedication which has paid off. Once this project had been completed so smoothly, Rauch Möbelwerke upped the ante and commissioned MBW as general contractor for a further roll conveyor system. The geographic proximity between the two business partners played a major role here: Rauch and MBW are located just 20 kilometres apart. Fast support on site is therefore possible at any time. The demands made on the MBW team were considerably higher in the follow-up order; this time, the order related to a much more complex system: At the Rauch site in Freudenberg, the installation of a new production line for finishing raw chipboard surfaces was planned. The inquiry comprised the supply, installation and commissioning of a rolling transfer station for stacks of chipboard. The operating mechanism was to comprise the complete material handling, storage and buffering technology for a 100-meter-long roll conveyor system including connection to the master computer and integration into the rail-run material handling. A brief extract from the specifications: Roll conveyor system at Rauch consisting of 27 electric-powered roll conveyors, each 3,200 mm long, 1,400 mm wide, 1,600 mm high, complete, including mechanical production, controls, electrical and mechanical

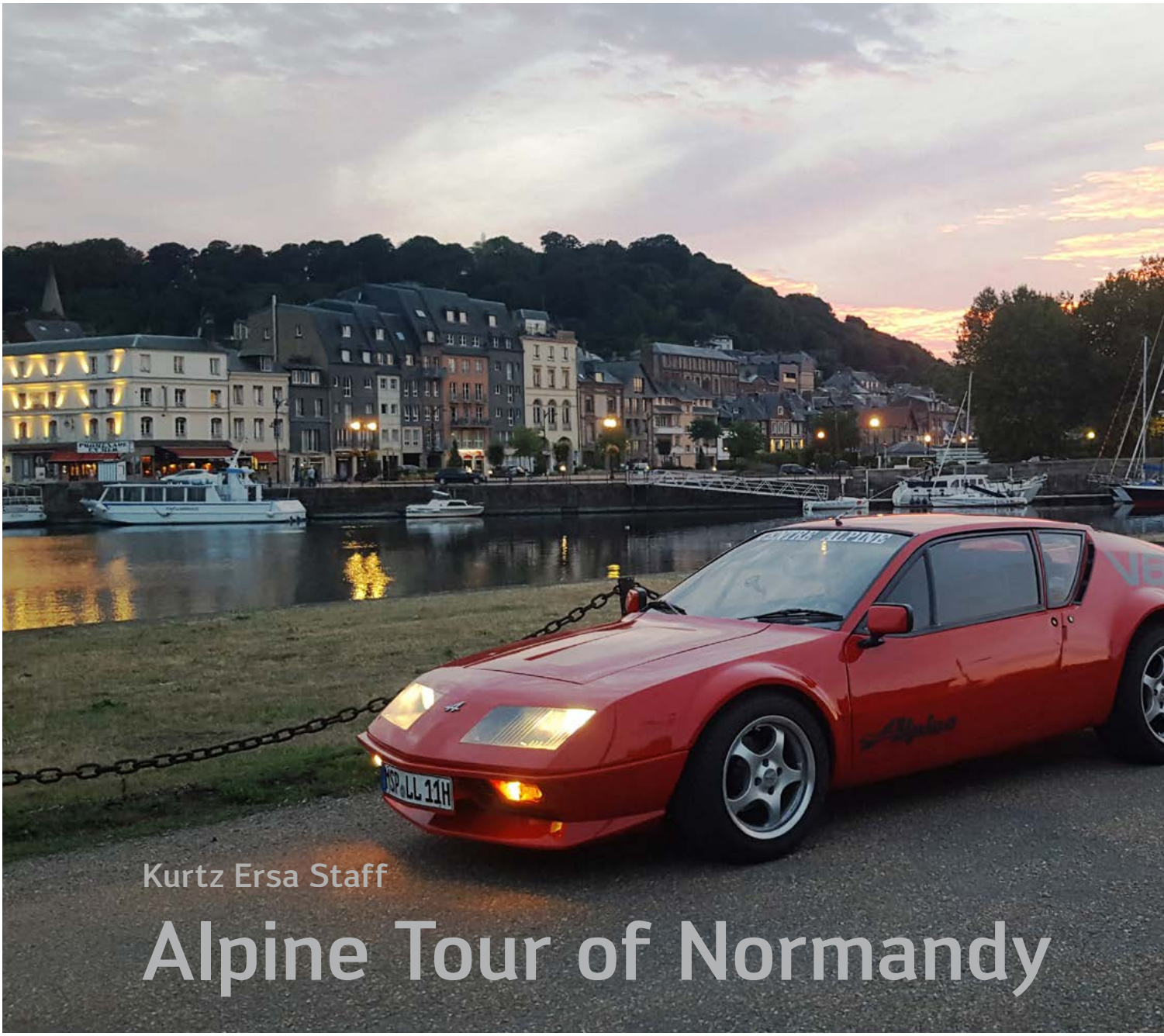
Big picture: Set-up of the MBW roll conveyor systems in the new production area at Rauch Möbelwerke in Freudenberg.

Small picture above: Rail-running conveyors in the new production area at Rauch Möbelwerke.

Small picture below: The whole picture – safe production at Rauch Möbelwerke.

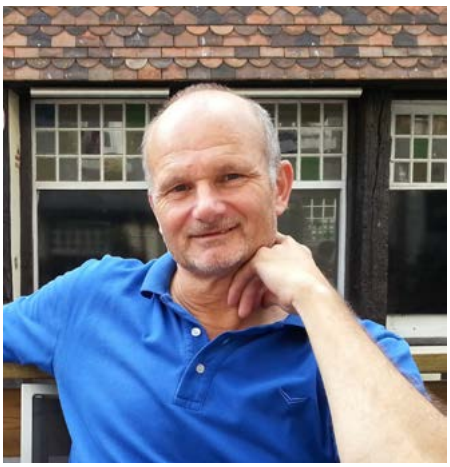
assembly, switchboard and commissioning. Just to provide a picture: The system was to take over the feed-in of large-format chipboard stacks to a laminating plant, removal, intermediate buffer and distribution to further production plants, together with rail-running conveyor vehicles – ultimately, it was about the complete development of a system which would operate in a fully-automatic process. MBW produced the mechanics to Rauch's design specifications. "We developed the related controls and software in close cooperation with the customer, and carried out their commissioning on site. The specification was to meet a load requirement of 4.5 tonnes per roll conveyor unit – with 27 units, it represents a load of 120 tonnes for the whole line which the system has to be able to shift without difficulty. In mechanical engineering terms, these are weighty matters so that we carried out a corresponding risk analysis in advance and, of course, issued a CE declaration of conformity", explains MBW Managing Director Matthias Sacher. Once the entire system had been installed on site by a MBW team, a test run ensued over four weeks in which the roll conveyors, electronics and controls where rigorously put through their paces. Here too: everything proceeded as requested, all friction free. The consequence: Full operation of the new production area at Rauch Möbelwerke was able to commence in mid-June. Both partners were delighted at the successful conclusion of a further project. We look forward to new projects in the future ... ■

rauch



Kurtz Ersa Staff

Alpine Tour of Normandy



Dieter Stegmeier, a Kurtz Ersa employee for more than 40 years, and enthusiastic car restorer.

Some see the car as little more than a set of wheels for getting from A to B – but this takes no account of the vast range of experiences a stretch of road can give. Dieter Stegmeier, HIP Coach and Kurtz Ersa employee for more than 40 years, has many stories to tell. One of these is from 2016, when the passionate Renault Alpine fan embarked on an unforgettable tour through Normandy.

My fascination with the Renault Alpine goes back a long way – many years ago, I had to extend my barn to house my car collection. But it was not hard to choose the right car for our 11-day tour last year: my A310 V6, built in 1982, which I have been driving for 33 years now. From Spessart, the route took us through Oostkamp in Belgium to Calais and then Dieppe, where the original Renault Alpine was made. Keeping to the coast, we made a number of stops in picturesque villages, and particularly enjoyed Étretat, famous for its impressive rugged coastline, and Honfleur with its old harbour and artists' quarter with lots of lovely little shops and galleries.

The real highlight was the monastery at Mont Saint-Michel, which is exposed to

Left: Honfleur, the romantic harbour town with its artists' quarter on the Seine estuary.

Top: Dieter Stegmeier with his wife Maria in front of Mont Saint-Michel

Middle: The Alpine works in Dieppe on the Channel, where my own Alpine 1982 first saw the light of day.

Right side: My passion – 140 years of restored motoring history.

some of the strongest tides in Europe and since 2015 has been regularly cut off to become an island once again. We spent a night there, and so were able to see for ourselves the unique display of ebb and flow. The eleven days passed all too quickly, but our indelible memories will be with us forever! It's amazing how many likes in the form of thumbs-up gestures we received during our tour through France – the Alpine is a real part of French mythology, comparable with the Porsche 911.

Our journey home brought us back through Paris, Verdun and Saarbrücken, some 3,000 km of travelling with plenty of lovely scenery along the way! ■

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