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Kurtz Ersa Magazine

For Customers and Business Partners of Kurtz Ersa Corporation

GLOBAL EXCELLENCE.

DRIVEN BY KURTZ ERSA.

Factory of the Year
Ersa GmbH wins GEO Award 2021

Radio-Frequency Technology
Kurtz GmbH & Co. KG wins innovation award IKU 2022

Automation Technology
Kurtz Ersa and SCHILLER AUTOMATION take off together

GLOBAL. AHEAD. SUSTAINABLE.

kurtz ersa

Team spirit is in the foreground

I have tackled the new task as CEO of Kurtz Ersa with great respect and pleasure. Rainer Kurtz is at my side as a mentor and remains with the company as an advisory board member, continuing to contribute his know-how and 40 years of experience. The shoes I have to fill are huge. But I do not have to master the challenges ahead on my own. Rather, I have more than 1,400 colleagues behind me who are all working towards the same goal and want to further expand the corporate success of the Kurtz Ersa Group. The team and the people at Kurtz Ersa are unique. The energy and the existing knowledge, which I feel and experience every day, confirm me on the path I have chosen. We have set ourselves great goals and I am sure: Together we will achieve them!

Ralph Knecht,
CEO of the Kurtz Ersa Corporation

Parts supply remains a major challenge. The task force we have set up for this purpose is working tirelessly to find precisely tailored solutions for our customers. Here, everyone is pulling in the same direction – with revised processes, direct communication and huge commitment, the Kurtz Ersa team is keeping delivery capability at a high level.

The first joint appearance of Schiller Automation GmbH and Kurtz Ersa Automation was extremely gratifying. The successful trade fair appearance at Automatica in Munich proves that the joint range of services is very well received by customers and visitors. The competences complement each other excellently, and the first overlapping projects have already been won. We see further growth potential in the international expansion of sales activities and joint development projects.

We have been at the start of our sustainability project "GoGreen250" since 2020. Initial initiatives have been launched in six different fields of action with the aim of being CO_2 neutral by 2029, the 250th anniversary of the company. We are fully on track with our activities and are documenting this for the first time in our sustainability report. A nice distinction is the ESG rating we received in July 2022 – only a few medium-sized companies in Germany can boast this. Another major highlight was winning the GEO "Factory of the Year" award. We were honored along with other well-known companies. This made us all proud, and I would like to thank everyone who made a contribution here once again.

We would like to thank all our customers and business partners for the excellent cooperation, even under difficult conditions, and are confident that we will be just as successful with you in the second half of 2022!

In good old tradition, I would also like to express my

Glück auf!

Your Ralph Knecht

ERSA WINS FACTORY OF THE YEAR!

FACTORY OF THE YEAR

Agile and lean – this is how the new process landscape at Ersa is structured. For this, Ersa GmbH received the GEO Award at the industry competition "Factory of the Year", which honors "Global Excellence in Operations 2021". This award confirms our high operational excellence across the entire value chain. In addition to the holistic approach, top scores in the areas of "Digitization", "Processes & Products", "Performance" and "People & Spirit" were recognized. A great award that spurs us on to become even better in the future!

The "Factory of the Year" is one of the most prestigious industrial competitions in Europe. For almost three decades, the management consultancy Kearney and the trade magazine "Produktion" have been honoring companies for exemplary production concepts. The competition jury is made up of renowned figures from industry and research. After reviewing the submitted documents, an experienced audit team from Kearney visits the shortlisted production sites. Ersa won the GEO Award in the competition, which recognizes excellence throughout the value chain and high value generation. Winners in the other "Factory of the Year 2021" categories are Siemens, ABB, Brose and Beiersdorf.

Happy winners: the Ersa team, prize winners in the "Factory of the Year" competition; photo: Anna McMaster

LIVE OUT AMBITIONS!

If a fast-growing global market leader curbs its ambitions, the company may fall behind. That´s where a prestigious competition comes in handy to stay on top. At Ersa, the company had set its sights firmly on the competition: We participate to win. The reward for the effort: The soldering machine specialists from Wertheim won the prestigious GEO Award in the "Factory of the Year" competition, which honors "Global Excellence in Operations".

Kurtz Ersa CEO Rainer Kurtz brings the competition to Ralph Knecht 2020´s attention. "We could participate," says Kurtz. Knecht, now CEO of the Group and then still Ersa boss, is visiting an important customer a short time later: Siemens. The electronics giant had won the title of "Factory of the Year" with a plant a few years earlier. After talking to the Siemens plant manager, Ralph Knecht is clear: "We´re in. And want to win."

The starting position is difficult, which makes the project even more sensible. Ersa is growing strongly. The Wertheim-based company´s soldering machines are in high demand. Applications of the digital mega trends are based on PCBs – whether 5G mobile communications or autonomous driving. Everything requires powerful networks, almost every electronic device contains one or more PCBs. Without circuit boards, there is no digitization.

New production capacities for growing business

The rapidly growing business requires new production capacities. Plans for a factory building at the Ersa site in Wertheim have long been ready. The shell is in place, but simply expanding the existing structures is out of the question for Ralph Knecht. He wants to create the greatest possible flexibility so that the company can react quickly to changes in market requirements. After all, strong growth also causes pain. It is not unusual for a company's organization to reach its limits as production output scales. Ralph Knecht wants to get to the root of the problem and prevent potential negative consequences of growing pains from arising in the first place. And yet, the new approach must conform to the "GoGreen250" sustainability offensive, with which Kurtz Ersa aims to become CO_2-neutral by 2029 – the "Sustainable Production" area is a decisive pillar in this, which has an effect both internally and externally. "With the help of the industry consultants from Staufen, we have completely redesigned and set up the organization and processes," says Ralph Knecht.

„We have a clear strategy in all business areas and essentially the focus is always clearly on customer benefits. Everything we do is derived from that."
–
Rainer Kurtz

„Also a key element for success are our Digital Transformation and all services around Industry 4.0. For us, this is 'connectivity' in action – machines and soldering stations are connected online, production is paperless, many things can be controlled via digital interfaces, and the ICCS is our digital supply center."
–
Ralph Knecht

FACTORY OF THE YEAR

„We have completely aligned the company with our redefined processes for strong growth and made it 'fit for future'."

Rainer Krauss

„For us, it was about defining the magic triangle in a sustainable way – cost, delivery reliability and quality. In all our process approaches, we have included this again and again. As a result, we've succeeded in significantly reducing throughput and delivery times, improving quality and, last but not least, increasing ergonomics and occupational safety."

Roland Diehm

Clear key figures as a guideline

In order to be able to clearly define goals, clear key performance indicators (KPIs) serve as a guideline: Above all, throughput times are to be reduced so that the increasing demand for Ersa machines does not lead to overloading of capacities – with increasing quality and decreasing quality costs. At the same time, delivery reliability, or "on time delivery" (OTD), is to be improved. At first glance, the overriding goal is simply formulated: "We wanted to plan the new structures in such a way that it would be possible to double sales without any major challenges," Knecht explains.

The reorganization involves serious changes that open up perspectives for the employees. The two-tier organization is broken up. A new layer is added: middle management. Until then, this intermediate layer did not exist in production. But as the company grows, there is a danger that important information will not reach all the people involved.

Open, clear communication

"Managers and employees have clarified the challenges situationally, but not necessarily with all the facts," says Ralph Knecht. And adds: "We reached limits when the operation got too big. It was always fine as long as we produced three, four, five machines a week. But when you have to deliver 15, 20 or 25 machines a week, it doesn't work anymore."

The new positions open up career prospects for a whole range of Ersians. "We were able to fill almost all positions in the new intermediate level with our own personnel," explains Ralph Knecht. Production processes at Ersa now increasingly follow the principles of the lean approach with open, clearly structured communication. Shopfloor management guarantees that challenges are solved on site without having to make unnecessary loops. With rule communication, problems are identified and usually solved directly – the next level up in the hierarchy only comes into play if the available resources are not sufficient.

„We relied primarily on employees who raised their hands of their own accord, signaling that they wanted to help successfully shape Ersa's future in a position of responsibility."

Judith Seindl

„The key and the kicker for the successful transformation of the company was the introduction of funds management."

Ralph Knecht

Constant companion: Digitization of Manufacturing

Ralph Knecht: "We have digitized the entire process so that we can produce machines without paper. From order acceptance to the entire logistics, quality processes, acceptance and documentation, and work plans." In this way, information always remains up to date, and all team members can access it. This creates transparency. Lean processes, transparency, clear communication in an efficient organization – these are the cornerstones of manufacturing at Ersa. They enable flexible reactions to market requirements without putting the company under stress. The clocked flow assembly 2.0 increases agility and reduces production time, which also has a positive effect on delivery reliability. With the continuous improvement process, order throughput time dropped significantly, and thanks to the product development process, "time to market" was reduced by 50 % – likewise, assembly was massively optimized using "design for assembly".

„Ersa's great strength is the enormous know-how about soldering in the minds of its employees. If you want to pass this on to our international clientele, it makes sense to equip our machines so that they can intelligently and independently manufacture high-quality products in a process-safe manner."

Nicolas Bartschat

"As a result, the 'Factory of the Year' competition was a yardstick for us to see whether this really works," Ralph Knecht sums up. It works, as the Ersa employees prove every day. Above all, the customers benefit and can better manage their own challenges in these dynamic times.

Kurtz Ersa publishes sustainability report for the first time and successfully participates in ESG rating

Kurtz Ersa has always pursued ambitious goals. This is also evidenced by our sustainability offensive "GoGreen250", with which we want to complete the transformation to a CO_2-neutral company already by 2029 – then the Kurtz Ersa Group will also celebrate its 250th anniversary.

Further information and online version:

We launched the initiative in 2020. Since then, a lot has happened: We have initiated processes in all areas of the company to act more sustainably. We have collected a wide range of data and indicators to determine the status quo and define clear targets with intermediate steps. In several working groups, we are putting our processes to the test and developing sustainable solutions for production and the supply chain based on these targets. In this way, "GoGreen250" does not remain a mere commitment, but develops into a demanding program in which all parts of the company are involved.

Report in accordance with GRI standard

For the first time, we have published a sustainability report with reference to fiscal 2021, which will be reissued on an annual basis in the future. All relevant topics, including targets and development, are recorded in it. To ensure comparability and high quality of the published information, our sustainability report complies with the requirements of the Global Reporting Initiative (GRI). This standard defines all the information that can be used to evaluate the environmental, economic and social performance of an organization.

On this basis, our report provides information on all aspects of our sustainability initiative. In addition to general information, six chapters explain topics and progress in the fields of action "Sustainable Development", "Sustainable Procurement", "Sustainable Production", "Sustainable Sales", "Sustainable Management" and "Sustainable Living". It includes all information relevant to customers and stakeholders. This first report focuses on our sites in Germany; in the future all international sites will be included.

Kurtz Ersa receives bronze medal at ESG rating

In the first EcoVadis ESG rating, the Kurtz Ersa Group received a bronze medal at the first attempt and uses this good starting point as one of the first medium-sized mechanical engineering companies in Germany for green financing. ESG stands for Environment, Social and Governance and measures the voluntary contribution to sustainable development that goes beyond legal requirements.

The Lump from Escherndorf becomes Hammer Wine!

The Kurtz Ersa HAMMERWEINprobe 2022 took place as always at the Eisenhammer – but this time not in the "Schwarzer Bock", because the number of invited guests was more than twice as high this year compared to previous wine tastings. But a new location was quickly found: the disused hall of the iron foundry, where the moulds for castings weighing up to eight tons each were prepared on large iron tables in the past.

After being welcomed by Rainer Kurtz, Prof. Dr. Jochen Griesbach (Classical Archaeology at the University of Würzburg), Director of the Collection of Classical Antiquities at the Martin von Wagner Museum since the fall of 2014, took the participants on a journey into the imagery of the ancient Greeks with his keynote speech "United in Ecstasy!" beamed onto a large screen, the assembled wine lovers learned about the most diverse vessel forms of Greek ceramics – amphorae, jugs, hydrias and, above all, drinking vessels, artfully designed for even more wine and drinking enjoyment as well as pleasure in the sweet life.

Wine lecturer Andreas Koch from the Koch winegrowing family in Retzstadt then moderated the culinary tasting of the six nominated Franconian wines and the food served with them. All participants evaluated smell, taste and harmony of the presented wines. After counting all the voting cards, the Escherndorfer Lump Riesling S, Winery Horst Sauer, achieved the highest overall score in an environment dominated by fine wines. The live band UptoDate provided musical accompaniment to the HAMMERWEINprobe, at which the dance leg was shaken for the first time in a long time.

Atmospheric ambience at the HAMMERWEIN tasting in the disused hall of the iron foundry

CAPACITY EXPANSION
Kurtz Ersa Central Warehouse

Four years after the official commissioning of the logistics center, capacities are further increased. Kurtz Ersa is investing around 10 million Euro in the implementation, consisting of two individual projects "Extension in the Existing Building" and "Extension".

In the first project, the capacities of the highly automated storage areas will be further expanded. This package includes the procurement of three additional warehouse lifts, which will increase the available storage area by 600 m² to 1,800 m² in this area. Two additional storage aisles will be connected to the automated small parts warehouse, each with a new stacker crane. The system is thus able to hold more than 46,000 containers measuring 600 x 400 mm. Investments are also being made in three additional state-of-the-art picking workstations. This will make it possible to increase the output of the entire system by more than 75 %.

In addition to the storage capacities and system performance, the functional areas required for structured and efficient processing will be further scaled in this course. The installation of a passenger and freight elevator will enable the connection of a 750 m² area to the material flow. The measures described are already being implemented and will be completed by the end of this year.

Structural expansion of the logistics center

The second project involves the structural expansion of the logistics center. The 18 m high existing building will be extended by 66 m to the south. Half of the newly acquired floor space of 3,300 m² with a volume of 64,000 m³ will be used to expand the pallet high-bay warehouse. This will create more than 4,600 additional storage spaces. This will allow the ramped-up external warehouses to be closed and inventories in the logistics center to be centralized again. In connection with the GoGreen250 initiative, a high-performance photovoltaic system will be installed on the roof of the extension building. Completion of the extension is targeted for 2023. The investment package will enable existing and future requirements for the central warehouse to be met on a sustainable basis. Efficient and well-structured logistics with short delivery times and sufficient capacities play a decisive role in ensuring the best possible customer supply.

Picking workstations connected via conveyor technology

Automated small parts warehouse with control panels

TENSE PURCHASING MARKET

The purchasing market is tight and will remain so for many issues. The important thing here is that we continue to succeed in supplying production and, ultimately, our customers.

How do we succeed in this? On the one hand, through the dedicated commitment of all Kurtz Ersa employees, on the other hand, through creative solutions and, of course, also through the cooperation with our suppliers in a spirit of partnership. Even if many take this for granted, the interaction with our suppliers as partners is indispensable for the material supply in the supply chain.

What have we done and what are we still doing?

» **Troubleshooting of emerging supply bottlenecks** (both in material procurement – thanks to our colleagues in China and USA for their support – for our suppliers and by approving alternative materials as well as adding new sources of supply)
» **"Getting ahead of the wave"** – anticipating our problems of tomorrow
» **Resilient supply chain** – this means that we are trying, together with our development, to make our supply more resilient by reducing dependencies and becoming more agile in availability

Through the measures we have introduced, we have always managed and continue to believe in our strength as Kurtz Ersa to move things that others do not move, or to face the difficulties of the market together and to face these challenges anew every day and every crisis.

Focus on long-term Corporate Success

After 40 years, Rainer Kurtz moves from the Executive Chair to the Advisory Board

When Rainer Kurtz joined the company in 1982, Kurtz Ersa generated around 20 million Euro with a total of 365 employees – today, sales are almost 14 times as high: 275 million Euro (2021), generated by 1,250 employees worldwide. With a view to IT, the introduction of SAP or process thinking in all business areas, as well as the leading design of the Kurtz Ersa organization and the corporate and holding structure, Rainer Kurtz drove forward trend-setting changes at an early stage and with foresight – today, the entire group benefits from this. For four decades, Rainer Kurtz has been contributing to the company with the highest level of commitment. He started at Kurtz GmbH as head of mechanical engineering and development – at that time, the foundry machine shop was also established for diversification purposes. From 1993, Rainer Kurtz took over the position of Managing Director of Ersa GmbH and, from 1997, the function of CEO in the entire Group – and for a long time he was active beyond the boundaries of the Group in important associations such as the VDMA and the Productronica Advisory Board. In doing so, he set the course for major trends such as electromobility, automation, Industry 4.0 or 5G communication at an early stage.

Growing sustainably

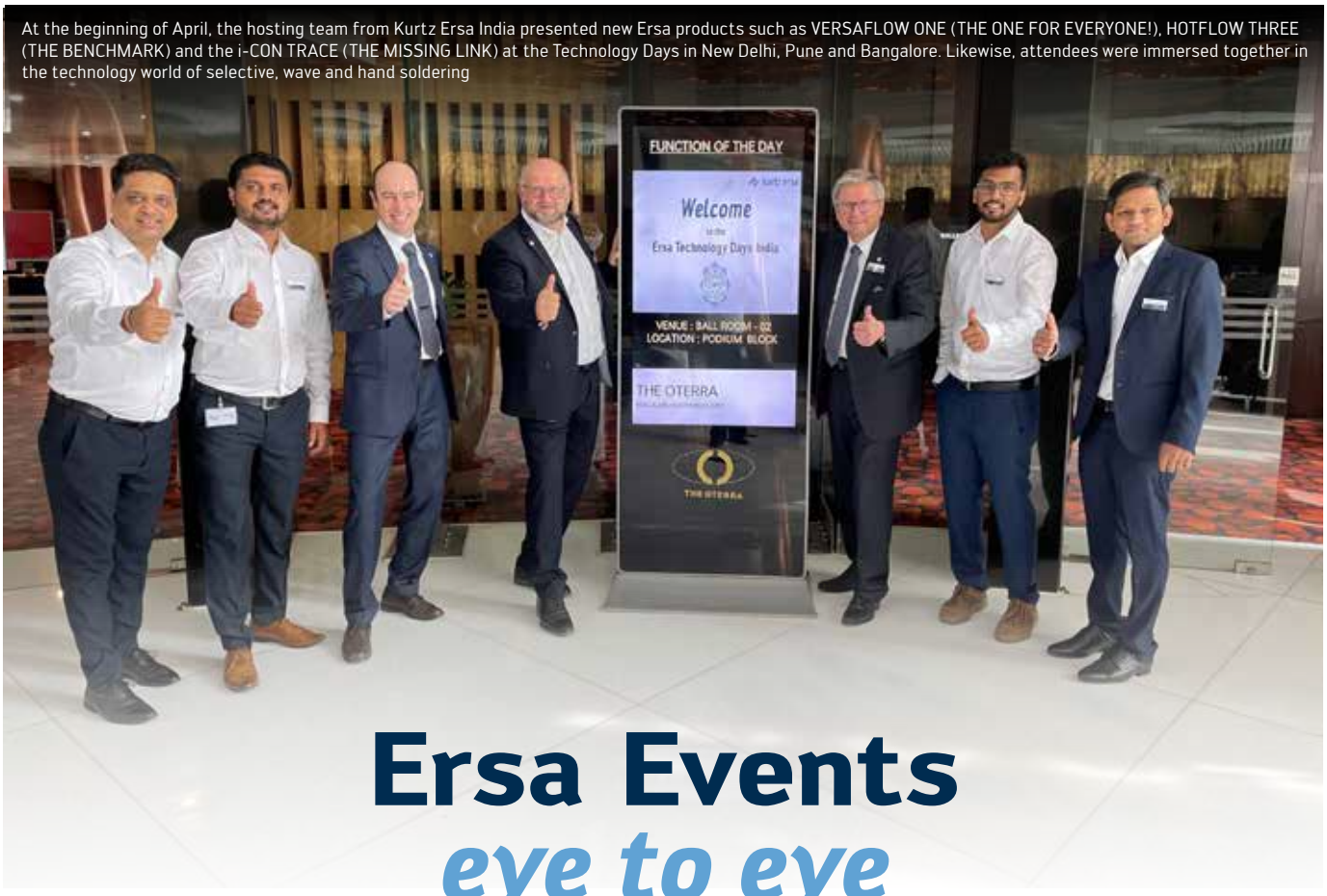
Rainer Kurtz has consistently committed himself to sustainability and has given the Group a consistent sustainability program. On this path to successful sustainability, Rainer Kurtz has set ambitious ESG targets for himself and the Group. By 2029 – the company's 250th anniversary – the company will be CO_2 neutral. Specific goals are being pursued in six corporate divisions and accompanied by top management under his aegis. The conversion of the vehicle fleet to electronic drives, the generation of energy through photovoltaics, or the avoidance of travel through the digital infrastructure that he is pushing for are the first practical examples of implementation for a long-term package of measures.

Social responsibility for people and nature

In the sense of ONE TEAM, Rainer Kurtz is committed to his employees – recently, for example, with the foundation of the in-house HAMMER ACADEMY, in which all Kurtz Ersa employees can deepen their know-how, and the communication platform HAMMER APP, which regularly provides all employees with news on their smartphones. Rainer Kurtz also has a big heart for culture and people in the Main-Spessart region. Whether it is the Mozart Festival, the local community, sports clubs or the local observatory – the foundation supports where necessary, always with a sense of proportion and foresight. For example, a foundation professorship is supported in order to further educate students and to inspire them for Kurtz Ersa at an early stage. Rainer Kurtz has always steered the Kurtz Ersa Group very confidently through difficult waters, such as the dotcom or financial crisis. He continues to leave behind a well-tilled field – with record figures in the last year in his responsibility as CEO, a tidy corporate structure with a focus on global mechanical engineering, a well-rehearsed management team, very stable key financial figures and a successfully structured transition to the seventh generation of shareholders. Even with his move to the Advisory Board, Rainer Kurtz will remain closely associated with the company. Many thanks for an absolutely unique commitment in the service of the Kurtz Ersa Group!

Milestones Rainer Kurtz

- 1974–1979 Study of mechanical engineering at TU Berlin
- 1982 Joined Kurtz GmbH, Head of Mechanical Engineering and Development
- 1987 Managing Director Kurtz Foundry Machines
- 1993 Managing Director Ersa GmbH
- 1997 Managing Director Kurtz Holding
- Since 2001 Chairman of the Board of Management of the Kurtz Ersa Group
- Since 2010 Chairman of the Advisory Board of the Productronica trade fair
- 04/2022 Change from CEO to Advisory Board



At the beginning of April, the hosting team from Kurtz Ersa India presented new Ersa products such as VERSAFLOW ONE (THE ONE FOR EVERYONE!), HOTFLOW THREE (THE BENCHMARK) and the i-CON TRACE (THE MISSING LINK) at the Technology Days in New Delhi, Pune and Bangalore. Likewise, attendees were immersed together in the technology world of selective, wave and hand soldering

Ersa Events *eye to eye*

Highly dynamic electronics manufacturing in particular thrives from the direct exchange of business partners and soldering experts. The exchange via digital channels quickly established itself with the beginning of the Corona pandemic – however, it could not completely replace the direct "eye to eye" dialogue. Especially when these discussions were enhanced by hands-on sessions – like during our Technology Days, which took place at the beginning of the second quarter in close cooperation with our representatives for the respective markets in India, Belgium or Switzerland. Direct interaction among people is almost irreplaceable!

At the Technology Days in Belgium on June 15 and 16, the team from Smans NV, who has been serving the Benelux countries as Ersa representatives since 1975, led the program. In addition to the current state of THT soldering, process know-how for electronics production was discussed in depth and the advantages of the low-melting LMPATM-Q solder were communicated – as well as how to increase the reflow performance by using vacuum.

With its Technology Day on June 22 in Lucerne, Delsys GmbH as Switzerland representative offered participants an exciting outlook on new technologies. The motto of the event was "Future technologies for your electronics manufacturing", the presentations were dedicated to topics such as stencil printing, soldering, press-fit and additive manufacturing – as well as were valuable tips for solder pastes, product carriers and solder masks.

Passionate about EMS services for UK, Europe & USA

Connor Solutions Ltd. relies on Ersa soldering systems provided by Blundell Production Equipment

Since its foundation in 1999, Connor Solutions Ltd. has grown into a leading EMS provider, maintaining long-term partnerships with high-performing mid-tier customers in the UK, Europe and North America. Connor Solutions has continued to evolve and grow strongly over the past 10 years. An important business partner is Ersa GmbH, which in cooperation with its representative Blundell Production Equipment (BPE) supports them on the systems side in the areas of wave, reflow, selective and rework.

The first investment in an Ersa soldering machine for Connor Solutions Ltd., 50 % of whose customers are small and medium-sized companies in the UK, was made in 2013 – it was a POWERFLOW A wave soldering system, which was provided and installed via Ersa representative Blundell Production Equipment. However, the first contact between the involved companies goes back a little longer, it took place in 2011 during the world´s leading trade fair for electronics manufacturing, Productronica. The motivation was the replacement of an older wave soldering system. Connor Solutions Ltd. screened the market and several leading manufacturers were selected, including Ersa Soldering Systems. An on-site machine demonstration took place at Blundell Production Equipment in Coventry. Already on this occasion, it was noted positively by Connor Solutions that the Ersa systems were "made in Germany" and had an excellent reputation in the industry for durability, machine availability, output and quality. The worldwide sales and service network was also convincing across the board, including the excellent regional support provided by the Blundell team. "Apart from the price-performance ratio, the European assembly, the access to manufacturer know-how as well as the support being located in a favorable time zone were convincing competitive advantages", says Dermot Guerin, Managing Director at Connor Solutions Ltd. "Above all, we attached great importance to the new machine covering as wide a soldering spectrum as possible, which is why we opted for full equipment right from the start, including features such as top, bottom and convection heating for homogeneous heating of the assemblies," adds Craig Bryant, Operations Director at Connor Solutions.

Connor Solutions´ business increased significantly afterwards. Productivity and quality took a real leap. Four years later, two more Ersa soldering machines followed to optimally serve the growing volume. On the hardware side, a VERSAFLOW 3/45 for selective soldering

Ersa VERSAFLOW 3/35 GLOBAL EDITION with the most popular features of electronics manufacturing around the globe

Connor Solutions Ltd. site in Houghton le Spring in the Northeast of England

Craig Bryant, Operations Director at Connor Solutions (left), with Ersa Area Sales Manager Christian Ott

and a HOTFLOW 3 reflow soldering system supplemented the Connor machine park. Only one year later it was three more HOTFLOWs as well as a POWERFLOW PRO wave soldering system – with 180 employees the company's sales had climbed to 28 Million Euro in 2018, generated on 6,000 m² production area. Even during the Corona pandemic business continued to grow – one more VERSAFLOW 3/35 GLOBAL EDITION made sales rise to 37 million Euro. Recently, Connor Solutions had the opportunity to acquire another production building in the close neighborhood – until the end of this year the Connor Solution production area grows to 11,000 m². Since Connor Managing Director Dermot Guerin expects sales to double in the next five years further soldering systems will find their new home in the increased production area. "It is our task as EMS service providers to always get more out of our systems regarding tolerances, specifications and, above all, stability in the process," says manufacturing expert Craig Bryant. The Connor team can start working at any point in the product cycle, whether it's design for manufacturing, pre-production, volume production, global sourcing, testing, assembly, logistics or warranty.

Production area nearly doubled to 11,000 m²

Since the installation of the first Ersa selective machine, sales have increased from 16.6 million Euro to 40 million Euro – with the same number of employees! State-of-the-art production technologies, a high level of technical expertise and first-class service are the pillars of Connor Solutions' business. "We produce 50 million components month after month for our 40 customers at an absolutely competitive level – our First Pass Yield is just under 99 %," Dermot Guerin sums up.

To get outstanding results from powerful hardware, you also need an experienced team that knows which levers to turn to get the most out of their systems. That's why all system operators at Connor Solutions receive continuous training. In the next few years, Connor Solutions wants to grow from the current 200 employees to a team of 350 to achieve a strong growth in sales. „We live a business partnership here with the Blundell and Ersa teams that is honest, transparent and open. Without the Ersa systems and the exchange at eye level, we would not be where we are today – thanks for that and we look forward to further cooperation together," says Dermot Guerin.

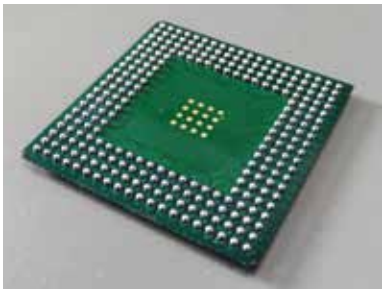
A look inside Connor Solutions' electronics manufacturing facility

Minimal down-time for CNC systems – thanks to Ersa Rework!

Allmendinger Elektromechanik shows how to keep production plants running with fast repairs and spare part deliveries

The HR 550 Rework System from Ersa

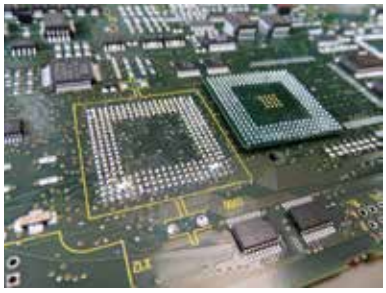
Component shortages are preoccupying and affecting the entire electronics industry. Major car manufacturers are worried about the supply of chips and entire production lines are producing with reduced capacity. But other industries are also cut short in their productivity when components and controls for CNC machines are missing. Exactly this is the service concept of Allmendinger Elektromechanik KG, who developed a business model for CNC controls more than 25 years ago. The customer base of the Swabian company ranges from small businesses to automobile manufacturers – an essential part of the success story are Ersa rework systems for component repair.



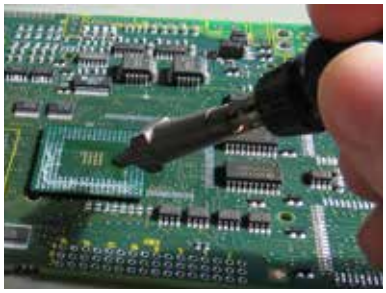
Ball Grid Array

The Allmendinger team repairs electronic as well as mechanical components for CNC machines: "Usually, our customers do not contact us until there is already an acute defect," Nadine and Daniel Allmendinger, second-generation Managing Directors, describe the typical service case. "Then it has to be fast. This is where our core competences come into play. Cross-manufacturer repairs of all assemblies at a fixed price for Siemens, Indramat, Heidenhain, Fanuc, and Bosch. Direct exchange and express shipping on request," says Daniel Allmendinger. "Everything. Fast. Fair." is accordingly the company credo. It is therefore about more than the "right to repair" already introduced by the EU Ecodesign Directive in March 2021. The primary goal: to minimize downtimes on high-quality production equipment using state-of-the-art measuring and production technology such as the X-ray system. Error analysis and data backup take place at the highest technical level, for example for the Siemens Sinumerik family, Simatic panels and Heidenhain CNC controls. A 24/7 online store with direct access to more than 40,000 spare parts on around 50,000 m² of storage space is an integral part of Allmendinger´s

Desolder BGA from controller board



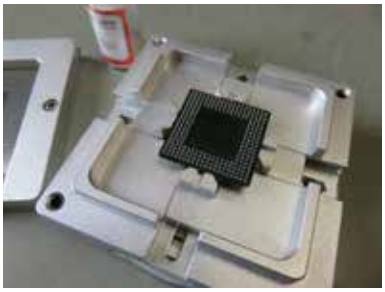
Desoldered BGA



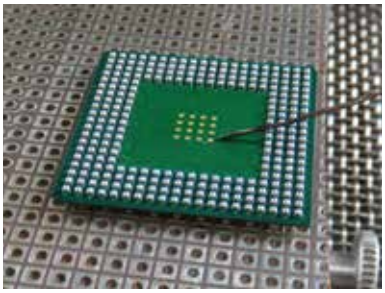
Removing the residual solder with a soldering iron

service. An Ersa HR 550 Rework System and Ersa soldering tools play a pivotal role in board-level component repair. The range of repair services is as complex as their causes: Customer-specific components are often currently not available; rather, they must be "saved" and reused. Equally essential: the reuse of components in older controllers for which there are no longer any components available. If the solder connections on a BGA are oxidized or the entire component is faulty, it is removed, cleaned, and then prepared, placed and soldered back in. Component recycling in the best sense and with the highest demands on quality. Allmendinger backs up this quality claim with a 25-month warranty.

During desoldering, the component must be gently heated. It is automatically lifted off with a vacuum pipette as soon as the solder has melted. In particular, the limit temperature for many SMD components of 260 °C should be undercut as far as possible in order not to damage the component. With homogeneous preheating of the assembly from below, targeted heat input from above and a sensor-guided process sequence, the Ersa HR 550 ensures consistent soldering results.



Reballing of the BGA



Remelting of the solder balls in the rework system

Once the component has been desoldered, the residual solder on the board is removed. The still warm circuit board is processed with a soldering iron and a soldering tip optimized for this purpose. The component is also freed from solder residues.

To reuse desoldered BGAs, they must be prepared. For this purpose, the component is provided with flux and new solder balls. The balls are then remelted in the rework system – and the component is ready for use again. To restore the assembly function, the recycled component is provided with flux or solder paste, positioned on the board and soldered in with a solder profile.

At Allmendinger, they appreciate the reliability and flexibility of the Ersa HR 550, which convinces with a wide range of applications for almost all components and assemblies to be repaired and converted. The repair service can thus react quickly even to tricky tasks. The service life of even older CNC systems is thus sustainably extended – an outstanding practical example of sustainability in industry.

Further information:

Allmendinger

Ersa HR 550

Rework step by step

INSIGHT BEYOND '22

Electrification. Impulses. Networking.

*Ersa looks to the **future of Electronics Production***

50 participants at the "Insight Beyond" technology and networking event

For its international technology and networking event, Ersa had put together an attractive bundle of topics under the title "Insight Beyond": Nine presentations highlighted the megatrend of electrification from the perspective of electronics production, interspersed with hands-on parts directly on Ersa soldering systems in the Demo Center. For this condensed look into the future of electronics production, 50 participants from the DACH region as well as from Belgium, Denmark, Croatia, Poland, Slovenia, the Czech Republic and the Netherlands traveled to Wertheim am Main.

Company Tour

Jürgen Friedrich, Technology Product Manager at Ersa, made the opening speech with the topic "Soldering technology for highly reliable electronics". Even after 37 years with the company, the proven soldering expert regularly encounters new challenges for which innovative solutions must be found in the form of sustainable soldering technologies. With this background, Jürgen Friedrich overviewed current design challenges in the production of high-reliability assemblies and devices. These are anything but theoretical issues, on the contrary, they directly influence the later performance of the electronic assemblies. Michael Zahn, responsible for business development at Christian Koenen GmbH, took up the ball and spoke on "Future trends for high-precision stencil printing" about the increasing miniaturization in electronics production, which also places increasing demands on stencil printing. It is extremely important to be precise in this respect, as defects in electronics production can largely be traced back to stencil printing.

Jürgen Friedrich, Ersa Product Manager for Application Development, during his presentation on high-precision electronics ❶ Michael Zahn from Christian Koenen GmbH during his presentation on high-precision stencil printing ❷ Michael Haas, Ersa Product Manager Reflow, introduces a new era of reflow soldering with the HOTFLOW THREE ❸+❹

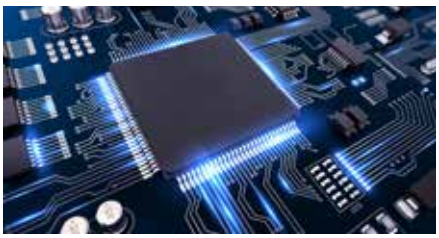
Michael Haas, Product Manager Reflow at Ersa, literally took the audience on a journey to a "new era of reflow soldering" – from the conference room to the Demo Center one floor below, where it was vividly demonstrated how highly efficient reflow soldering works without compromise and with regard to sustainable aspects. People stayed on site and switched from reflow to selective soldering technology. Tobias van Rossem, Area Sales Manager at Ersa with responsibility for international customers, unveiled the VERSAFLOW ONE X, which makes professional selective soldering accessible for everyone. The new model in the VERSAFLOW family combines all the advantages of its larger systems in terms of hard- and software – the absolute highlight being the x-variable soldering module, which ensures unique performance.

In his presentation "Digital Transformation – Tuning the burden into opportunities", Prof. Dr. Helmut Krcmar shows the opportunities associated with digitization

Back in the conference room, Dr.-Ing. Konstantinos Savvas of Kolb CLEANING TECHNOLOGY GmbH showed "The next step to the Perpetuum Cleaning Mobile" or how to achieve maximum cleanliness with zero water consumption and thus the evolution of the next cleaning stage. A special highlight of the presentations was the topic "Digital Transformation – Tuning the burden into opportunities", for which the business informatics specialist and economist Prof. Dr. Helmut Krcmar from the Technical University of Munich could be won. He vividly and eloquently demonstrated the importance of self-efficacy and linked it to the digital transformation, which has no panacea and requires building a "digitally proficient" workforce that sees digitization as an opportunity rather than a burden.

From the comprehensive approach, it was back down to the product level, where Julian Greß, Product Manager Soldering Tools at Ersa, presented the i-CON TRACE soldering station, the "missing link" for seamless documentation and thus continuous traceability in hand soldering. The two subsequent presentations highlighted the possibilities of automation – first, Stefan Huttelmaier from Schiller Automation presented sustainable key solutions for electronics production; Rob Raine from ASM Pacific Technology explained the approach of "open" automation and which steps in the analysis process in electronics production need to be considered to leverage automation potential. Last, but not least, Ersa General Sales Manager Rainer Krauss led the participants on a "Company Tour" through the Ersa flow-cycle production facility, which had won the GEO Award in the "Factory of the Year" competition a few days earlier. At the end of the day, the audience had not only listened to nine presentations, but also stored a lot of know-how – valuable knowledge that will make numerous electronics productions at home and abroad even more effective and even more sustainable!

Symposium „Soldering in Electronics Production“



In the production of electronic assemblies, soft soldering continues to be state of the art and thus the way forward. Countless factors must be considered in electronics manufacturing in order to achieve high quality – how this is achieved, which challenges must be mastered in the process and where the trends are heading will be the topics of the two-day specialist conference “Soldering in Electronics Production” on October 26 and 27, which will be held again in 2022 at the Ersa Seminar Center in Wertheim after its successful premiere last year.

Together with top experts, you will immerse into the world of soldering – in terms of content, the symposium will cover materials fundamentals, the properties of solder and base materials and the deepening of technology know-how in terms of reflow, vapor phase, selective, wave, hand and repair soldering as well as stencil printing. The successful program of the last symposia has been expanded with new, exciting lectures to represent the broad field of electronics manufacturing in an even more diverse way.

Further information and registration:

TECHNOLOGY FORUM WITH IN-HOUSE EXHIBITION.

by Kurtz Ersa

Exciting technology presentations, informative exchange of experiences and cutting-edge electronics manufacturing equipment. On 27 & 28 September in Wertheim.

The anniversary year 2021 was completely dedicated to “Yesterday. Tomorrow. And Beyond.” – together with business partners, we celebrated “100 years of Ersa” and presented innovations such as VERSAFLOW ONE, HOTFLOW THREE and i-CON TRACE, which once again set trends in the industry while meeting future challenges. This motto also precedes our two-day technology forum with in-house exhibition on September 28 and 29, to which we cordially invite you to Wertheim. We look forward to welcoming you personally in Wertheim!

Started the webinar series with web training for Kurtz Ersa, Inc. subsidiaries in the US and Kurtz Ersa Asia. The first webinars for customers worldwide will follow

Kurtz Webinar „Thermo Coating/IMPFC“

The Kurtz Demo Center presents technologies for the processing of particle foams – in presence or live, as required! Kurtz Particle Foam Machines has launched its webinar series with the topic “Thermo Coating/IMPFC (In Mould Particle Foam Coating) Processing”. In the 60-minute web lecture, Kurtz Product Manager Sebastian Schreck looks at the innovative process from all sides, followed by a machine demonstration live from the Kurtz Demo center.

Particle foam with an appealing surface

One of the biggest challenges of particle foam mouldings for end-user viewing applications is the traditionally unappealing and colloquially referred to “Styrofoam part surface”. On this conventional surface, individual particle foam beads stand out with corresponding imprints from filling injectors, vapor deposition nozzles and ejectors.
This surface can be overcome with the thermo coating process – to a surface similar to injection moulding on the particle foam carrier element. All the technical advantages of the particle foam are thus automatically still integrated in the moulded part.

Basic process: THERMO SELECT with up to 75 % reduced mould volume and up to 80 % reduced steam consumption

Variotherm mould temperature control forms the basis for a processing method without direct water cooling and the ability to achieve the correspondingly required mould surface temperatures. The elimination of water in the mould leads to the general avoidance of surface defects. The steam entering the mould can no longer condense on the mould surface and is thus used exclusively for welding the material beads.

Add-On: Thermo-Coating Process

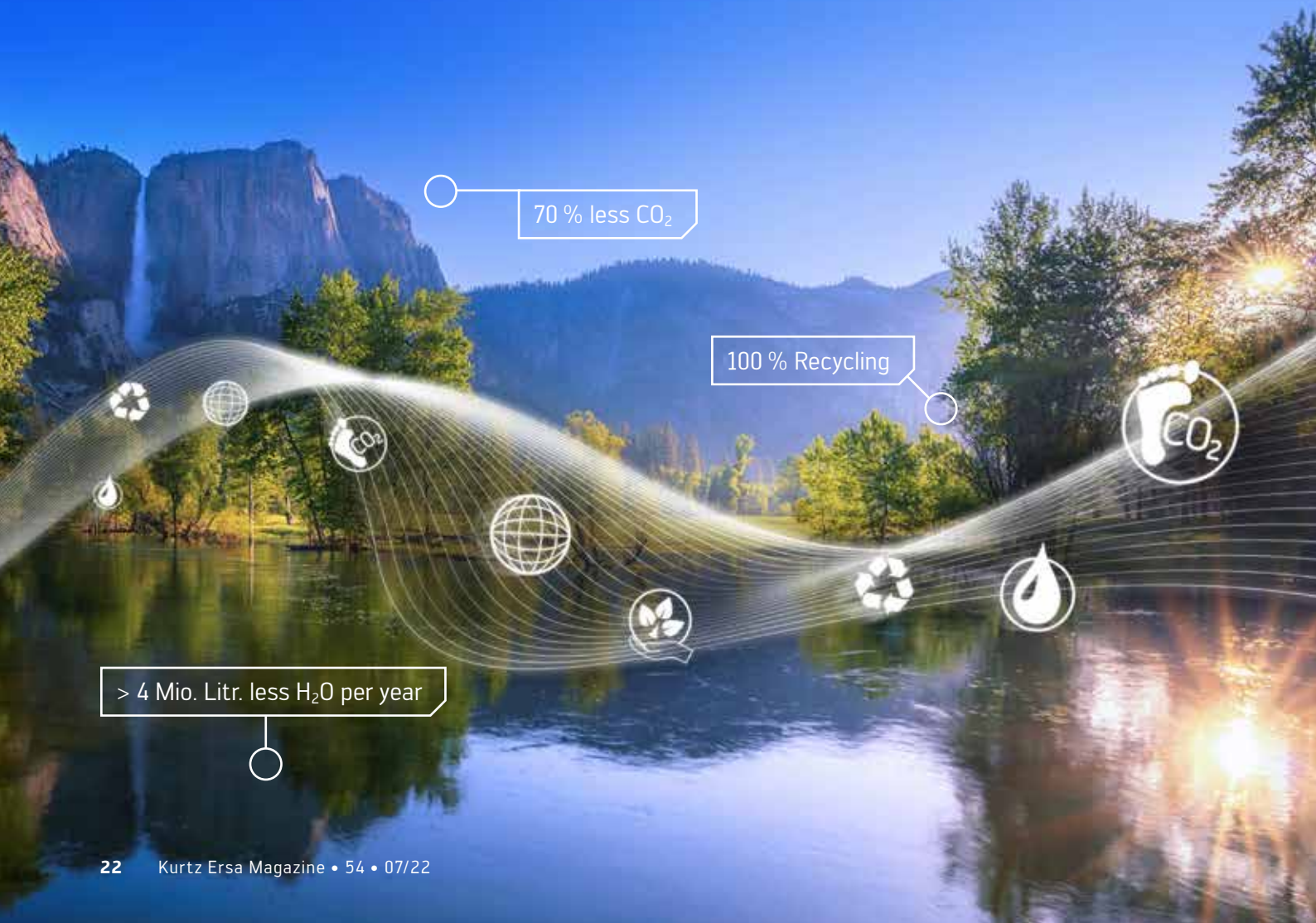
Monomaterial moulded parts with particle foam carrier element and corresponding surface layer of hard plastic of the same base raw material. Plastic granulate powder is introduced into the mould, melted and back-foamed with the particle foam. The process enables completely new areas of application for particle foam parts.

With further webinars from the Demo Center, Kurtz remains in close dialog with customers and interested parties as an alternative to demo demonstrations as face-to-face events.

iKU

Der Innovationspreis für
Klima und Umwelt 2022

RADIO-FREQUENCY TECHNOLOGY WINS IKU 2022



Representatives of the workforce involved in the development, sales and marketing of RF technology had every reason to celebrate

The German Innovation Award for Climate and Environment (IKU) is a major prize of the German Federal Ministry of Economics and Climate Protection. It is awarded every two years, and Kurtz Ersa secures the prize in the "Environmentally Friendly Technologies" category at the eighth award ceremony.

With the Innovation Award IKU, the Federal Ministry of Economics and Climate Protection honors ideas that show new ways in the field of climate and environmental protection and thus recognizes the commitment of industry and research. Innovative technologies, techniques, processes, products, services and business models for climate and environmental protection are honored in seven categories. On the competition entry Radio-Frequency Technology (RF) of Kurtz GmbH & Co. KG, the Kurtz developers worked for almost four years. The technology enables the processing of particle foams by electromagnetic waves in the high-frequency range. Compared to conventional steam processing, RF can save up to 70 % CO_2, 90 % energy and 100 % water, depending on the material used.

At the IKU 2022, Kurtz entered as a manufacturer for moulding machines with the project "Resource-saving moulding production from bio and recycled materials using radio-frequency". In addition to the savings mentioned above, RF technology offers a sustainable solution for the cycle, as it achieves recycling rates of up to 100 % and for the first time also allows the processing of biological materials such as corn grits – a by-product in food production that is usually disposed. Kurtz's RF technology opens up access to many other markets; potential fields of application are primarily a wide variety of component groups in the e-mobility industry. New business areas are also emerging through the processing of high-temperature resistant materials with a welding temperature of up to 250 °C, for example in the aviation or automotive sectors.

Contribution to climate and environmental protection

This year's IKU was awarded to 150 companies with pioneering products and services. The high-ranking jury made its decisions on the basis of scientific assessments by the Fraunhofer Institute for Systems and Innovation Research ISI. Criteria included innovation performance, contribution to climate and environmental protection, market potential of the innovation, benefits for consumers and companies, and possible synergy effects. In January 2022, 21 projects were nominated for the IKU 2022 by the jury, which stood out from the other applicants as the best innovations for protecting the climate and environment. 25,000 Euro in prize money will go to Kurtz GmbH & Co. KG as the winner of the category "Environmentally Friendly Technologies", which will be used for further support of climate and environmental protection activities and for further investments in research and development of new technologies. Kurtz Ersa is proud to stand as an award winner alongside big players such as HeidelbergCement and Grundfos.

Kurtz Managing Director and Chairman Uwe Rothaug is delighted with the award: "It was a great surprise and great honor to receive this award. It is a great feeling that our employees' years of work have paid off. An even greater gift is knowing that we are contributing to climate protection with our development and helping to drive the circular economy in our industry." Kurtz Managing Director and COO Matthias Hofmann adds: "We are extremely pleased that, after winning the Bavarian Energy Award 2020, we have now also been honored at a national level with the IKU 2022 for our RF technology and that we were able to convince such a high-caliber jury of our project. The award spurs us on to set new ambitious goals in the development of sustainable technologies and to continuously develop and optimize existing processes in terms of sustainability."

Managing Directors Uwe Rothaug and Matthias Hofmann beaming with joy accepted one of the seven highly coveted IKU 2022

Sports helmets made by Yee Fung with the help of Kurtz Moulding Machines once again attracted the public´s attention at the 2022 Beijing Winter Olympics – whether on Aleksander Aamodt Kilde with his Oakley model ARCS5Pro, who took bronze, or glamorous ski freestyler Eileen Gu, who won two gold and one silver medal with her Oakley model MOD1. The determination and commitment of these Olympic champions to exceptional performance are a perfect example of the successful spirit of the partnership between Yee Fung and Kurtz

In 1977, Mr. Leung Lun Ping founded Yee Fung Polyfoam Factory in Hong Kong, where EPS packaging parts were literally produced with bare hands on a semi-automatic vertical press. Today, Yee Fung has grown into a 200-million-Euro company that has been awarded China´s Top 200 Light Industrial Companies in 2021.

The history of Kurtz Ersa and Yee Fung dated back to 1986 – his company was among the first in Asia to buy Kurtz Moulding Machines. Since then, Yee Fung has purchased over 100 machines and remained a loyal business partner of Kurtz GmbH & Co. KG. Sidney Leung, Managing Director of Yee Fung International Ltd. and 2nd generation owner, tells the success story: In the mid-1990s, Yee Fung foresaw that EPS packaging would become a mass product and that competition in mainland China would increase. The company pursued a strategy to diversify its business and focused on higher value-added products combined with advanced production technology. Currently, Yee Fung has four factories in China producing EPP car parts, bicycle helmets, ski helmets and goggles, eyeglass lenses and ETPU soles for sports shoes. To be able to manufacture complex products while meeting the strictest quality standards requires sophisticated machinery, for more than 35 years, Yee Fung has relied on Kurtz systems. Machines, such as the BOOST FOAMER and the ROTO FOAMER, which were originally developed for Yee Fung. Recently, these machines have been complemented by the WAVE FOAMER with RF technology, presented for the first time at the K trade fair 2019 and meanwhile a real part of the Yee Fung machine park.

Sports helmet production for more safety

In the conference room of Yee Fung, one cannot fail to notice the posters with famous brands such as Adidas, Oakley, Giro, Fox head and more impressively photos of sports celebrities and champions. In the four factories, sports helmet production is the biggest part of Yee Fung´s business. It was in the 1990s when Mr. Leung senior saw the number of bicycles users in China and wished to improve the safety of the people. He started to explore bicycle helmets production. Instead of being just a parts supplier, Mr. Leung spoke directly with reputable

CHAMPION´S CHOICE!

producers in the US for strategic alliance – which was formed. From producing just the EPS part of the helmet in the beginning, today Yee Fung has the full capabilities from designing the helmet to the manufacturing of the complete product with the EPS inner cushion, lining, outer shell, painting, straps fully assembled.

When human safety is concerned, a sports helmet must meet the highest quality standards. A special EPS quality with high density is needed, which is perfectly fused with the outer shell. This is achieved by the flexible and precise parameter settings in the Kurtz Moulding Machine. For high-performance sports helmets, the design is particularly complicated because aerodynamics are required and special material must be used for the inner lining, straps and visor, which are moulded directly into the EPS. As a result, the production efficiency of conventional machines dropped dramatically. Together, Kurtz and Yee Fung developed the ROTO FOAMER to solve this problem and increase production cycle time by 50 %. Kurtz supplies the state-of-the-art RF moulding technology exclusively to Yee Fung in Asia for the production of sports helmets. This technology not only increases overall efficiency and quality, it also makes a significant contribution to sustainability through its significantly reduced carbon footprint during production. Sports helmets, manufactured by Yee Fung on a Kurtz machine, recently attracted renewed public attention at the Winter Olympics, when Aleksander Aamodt Kilde took the bronze medal with his Oakley ARCS5Pro model and the charming Eileen Gu won, with her blue Oakley MOD1 model, twice gold, once silver. The incredible determination and commitment of such winners is exactly the spirit of success behind the partnership between Yee Fung and Kurtz.

Yee Fung and Kurtz: business partners since 1986

Würth Additive Group and Kurtz Ersa are now cooperating in North America in the distribution of the Alpha 140. Following the successful market entry in the D-A-CH region, Kurtz Ersa is now targeting the North American market with the plug´n´produce entry-level model for 3D metal printing.

Würth Additive Group & Kurtz Ersa – One Team

The Würth Additive Group is one of Würth Group's 400 companies in over 80 different countries. With more than 32,000 sales employees worldwide, as well as the existing know-how and experience in metallic 3D printing, possibilities for sales and distribution are almost unlimited. For Kurtz Ersa, Würth Additive Group is simply the perfect partner for sales of the Alpha 140 in the North American market. After the initial contact at the RAPID + TCT 2021 additive manufacturing trade fair in Chicago in September 2021, things developed rapidly: Two months after the formnext 2021 in Frankfurt am Main, a delegation from Würth Additive came to visit us at the Demo Center in Kreuzwertheim, where the Alpha 140 was presented live in operation and a preview of the Flying Ray was given.

Alpha 140: easy handling, versatile possibilities

In the next step, the mutual enthusiasm was followed by the presentation of the Alpha 140 to the closest team at an internal Würth Additive event in Tampa, Florida, in January 2022. Everyone was enthusiastic about the simplicity of the otherwise quite complex laser-powder- bed-fusion-process and the resulting possibilities of the Alpha 140. The commitment to cooperation was very strong, and the first joint action was the presentation of the Alpha 140 at the Expo Manufactura in Monterrey, Mexico in February 2022. More than 300 visitors at the Würth Additive Group booth within three days – and the Alpha 140 as the visitor magnet – made this trade fair appearance a very successful one that whetted the appetite for more. The colleagues of the Würth Additive Group – as well as those of Kurtz Ersa – were very pleased about the first-class response of the visitors. This confirmed the Würth Additive Group in its decision in favor of Kurtz Ersa and the Alpha 140 even further. Based on all this positive experience, the signing of the contract was just a formality.

After the official signing in March 2022, the Würth Additive Group tackled the matter on the sales side: In order to be able to present the Alpha 140 directly to interested parties on site, a roadshow across North America with 17 stops was organized. In April, we successfully attended the AMUG Conference and Expo in Chicago together. Of course, the most important trade fair in the field of additive manufacturing for the North American market was not to be missed: RAPID + TCT in Detroit in May. Here, too, we were able to convince the audience live of the Alpha 140. Further joint trade fair appearances in 2022 will follow. In addition to the trade fairs, the handling of the Alpha 140 also needs be trained and practiced. For this purpose, we were already able to have a first two-day training course at the end of April: Colleagues from the Würth Additive Group & Würth Industry from the USA, India and Germany were trained together, topics included the operation of the slicer, set-up and initial commissioning as well as the handling of metal powder and printed components.

We are convinced that this cooperation will further advance the democratization of metallic 3D printing and that we offer our North American customers a first-class product and service package for this purpose. The teams from Würth Additive and Kurtz Ersa are more than ready to get this show on the road together!

Presentation of the Alpha 140 in Tampa in January 2022

Training April 2022

Welcome, AM-Community!

AACHEN CENTER FOR ADDITIVE MANUFACTURING

At the end of April, we had the pleasure of hosting the semi-annual Meeting of the ACAM – Aachen Center for Additive Manufacturing. Located on the RWTH Aachen Campus, ACAM pools resources and facilitates access to the additive manufacturing know-how of leading scientific and research institutions for the industry.

In order to give the participants an idea about the Kurtz Ersa Group and our long-established technology history, the event started with a get-together at the Eisenhammer, the cradle of our company. It also included a guided tour through the HAMMERMUSEUM. In the old forge, the water-powered iron hammer could be marveled at live in action. The highlight for the AM community was our 3D demo center with the Alpha 140 and Flying Ray 3D metal printers. On the second day, the research partners presented their interim reports with updates on ongoing projects. In a community workshop, participants shared future AM topics and brainstormed activities and challenges related to different AM user stories. Many thanks to the team of the ACAM Aachen Center for Additive Manufacturing GmbH and all research partners – it was a pleasure to have you with us!



The semi-annual Meeting of the ACAM Aachen Center for Additive Manufacturing was held at the premises of Kurtz Ersa Group in Kreuzwertheim and Wertheim

An Alpha 140 under the Christmas tree

The Alpha 140 is our entry-level model for metallic 3D laser printing. The LPBF-based process has also convinced the ZF Friedrichshafen AG. True to the ZF motto "see. think. act." the employees opted for the compact Plug´n´Produce model after a visit to our showroom in Kreuzwertheim. Just in time for Christmas, the printer was delivered to the ZF site in Schweinfurt. Teams of Kurtz Ersa and ZF Friedrichshafen AG had met before that at the "30th Aachen Machine Tool Colloquium" in September 2021.

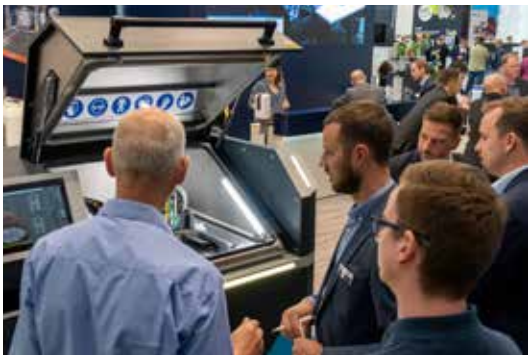
Just arrived – the Alpha 140 on its arrival at the ZF site in Schweinfurt

On the exciting journey into the mobility of tomorrow, a promising process such as metallic 3D printing must not be missing. It supports the extensive ZF portfolio and is used primarily in toolmaking. Trainees from ZF Friedrichshafen are also introduced to metallic 3D printing and can gain their own experience. ZF Friedrichshafen AG is thus pursuing the strategy of consolidating their position as an innovation driver, now also in the area of 3D printing – and we are very proud to support them in this endeavor with the Alpha 140. New feature of the Alpha 140: The integrated powder handling enables the operator to handle powder and printed parts in the printer without personal safety equipment – among other things.

EUROGUSS 2022

EUROGUSS in Nuremberg very well frequented!

After Pentecost, the foundry industry gathered in Nuremberg. Despite the vacations in some federal states, the trade fair was well attended, and interested parties from abroad were just as strongly represented as at previous events. At the Kurtz Ersa booth, we presented our highly efficient low-pressure casting process as well as our equipment for metallic 3D printing. The topic of additive manufacturing was given a special stage by the AM Pavilion in Hall 9 and it became apparent that metallic 3D printing is very present in the foundry industry, especially for prototype production. Key Account Manager Clemens Frenzel gave a presentation on the first day of the show on "Cost-effective printing of large parts with multihead systems". Many visitors accepted his invitation and came to our booth for advice. The compact 3D printer Alpha 140, which was brought along, also inspired. Kurtz Ersa offers perfect solutions from prototyping with 3D printing to series casting through low-pressure technology. Many thanks to all visitors for the interesting discussions!



Excellent Engineering and Project Management.

Automation Technology by Kurtz Ersa and SCHILLER AUTOMATION.

SCHILLER | kurtz ersa

A strong team for automation technology – Kurtz Ersa and Schiller live the Group's "One Family" concept

First joint trade fair for Kurtz Ersa and SCHILLER AUTOMATION

With the concerted appearance at the all about automation in Friedrichshafen, our automation experts from Kurtz Ersa and SCHILLER AUTOMATION have proven that they already work together excellently and are continuously merging into a powerful unit.

Acquisitions start with getting to know each other – and open questions about structures, processes, approaches such as order processing. In our case, the core competence of both companies quickly became apparent: comprehensive project management, which is now continuously underpinned with manpower. SCHILLER AUTOMATION has officially been part of the Kurtz Ersa Group since 01.01.2022 – the business area, which has grown significantly as a result, also has a strengthened sales team to ensure greater visibility in the market. On April 5 and 6, a mixed Kurtz/SCHILLER team traveled to the first joint automation trade fair – the destination was all about automation in Friedrichshafen on Lake Constance, which reaches interested parties throughout the DACH region. How much the trade visitors appreciated the personal exchange after a two-year break due to the pandemic was immediately evident from their faces. Perfect opportunity for Kurtz Ersa and SCHILLER AUTOMATION to present themselves as the "One Family" of the automation industry. The booth was consistently well attended and generated numerous interesting inquiries with a lot of project potential. "I am proud of our automation experts, who are already working together excellently and achieving top results after such a short time. After the successfully jointly mastered trade fair start, we now have our hands full to offer the requested projects and are already looking forward to the planning and implementation phase with the customers," was the enthusiastic reaction of Dr. Michael Wenzel, Managing Director of the Kurtz Ersa Automation business unit.

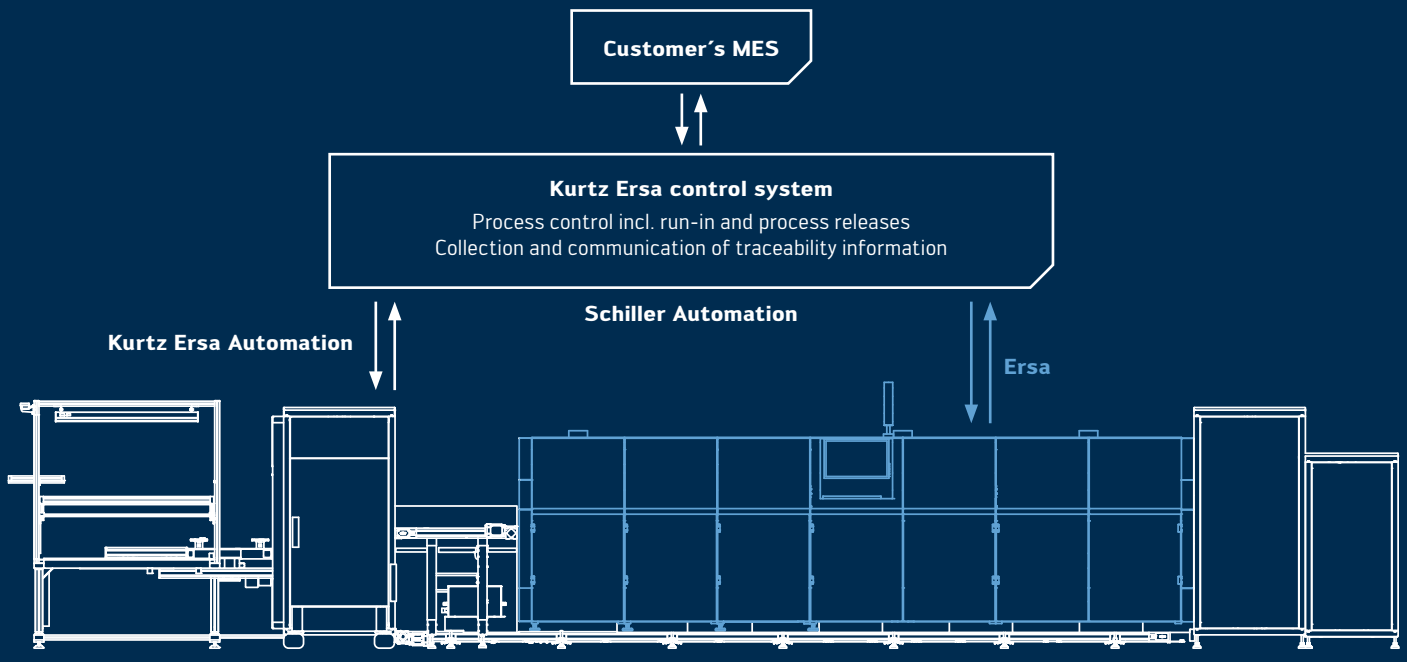
Visitors at all about automation in Friedrichshafen at the beginning of April

Control system
for electronics production

Single machines are often used in combination to produce complex components. In the case of several component variants, it is necessary to automate the routing in order to exclude manual errors, enable automatic setup and ensure continuous traceability.

Automation in hardware and software is the core competence of SCHILLER AUTOMATION, which as a new company of the Kurtz Ersa Group optimally complements the Group's product portfolio. A first joint project was implemented, in which machines from Ersa and Kurtz Ersa Automation are connected to the customer's MES by a software solution, the LineController from SCHILLER AUTOMATION.
The new Kurtz Ersa control system generates visualizations and shows the operator where which components have to be placed. The tool carrier transport following the placement receives the routing of the components and at the soldering machine the recipe associated with the component variant is automatically called up via the control system.
The customer's MES supplies the necessary component parameters, which are translated by the control system to the machine-specific interfaces. The MES receives, also translated by the control system, the traceability, machining and part status information generated by the machines.

"In this specific case, our Kurtz Ersa control system for process control, including run-in and process releases, was combined with hardware from Kurtz Ersa Automation and an Ersa VERSAFLOW 3/45 selective soldering system – we can also implement such overall solutions for all other Ersa soldering machines," says Dr. Michael Wenzel, Managing Director of the Automation business division in the Kurtz Ersa Group. This means that the customer receives a complete solution adapted to his customer-specific MES system – and has only one contact person for the entire production unit. The individual interfaces used in the plant are combined by the control system. With this solution, Kurtz Ersa has successfully expanded its competence as a system provider.



Automation – ***Business Field with a Future***

In times of a general shortage of skilled workers, the topic of automation continues to gain in importance. In conjunction with already known factors that promote automation, the topic is becoming even more important – reproducible quality, quality documentation through online data acquisition, increased performance and, last but not least, the pure cost aspect.

In the application field of electronics production, the Automation business unit in the Kurtz Ersa Group is repositioning itself through the recent acquisition of Schiller Automation, thereby expanding its existing portfolio of products and services. The combination of Schiller Automation – the specialist for the optimal use and linking of various assembly and machining processes – and Kurtz Ersa Automation, the specialist for peripheral and circulation systems in the electronics industry, enables the delivery of complete systems including the soldering process, but also with further processing steps from one source. For example, soldered boards can be directly further assembled, screwed or glued, with relevant processing parameters being monitored, documented and stored in each step. The customer benefits from the reduction of interfaces thanks to perfectly matched components and a single point of contact – and the many years of experience in numerous processes and their interlinking has an equally positive effect.

This range of mechanical engineering services is rounded off by interfaces to the data level: from tried-and-tested systems for data collection and further processing from the plant to solutions for connection to the customer-specific MES or cloud system, the technological range of existing experience leaves little to be desired. Thus, in addition to process machines, e.g. for soldering, foaming or casting, and automation peripherals, the entire Group's portfolio of services also includes data technology competencies, such as those required for quality inspection and documentation. With these key competencies for today's and tomorrow's market requirements, Kurtz Ersa is ideally positioned for the future.

SCHILLER | kurtz ersa

Kurtz Ersa Automation supplies holistic automation solutions from a single source

Special

THE GOAL IS ZERO EMISSION!

Exclusive lecture by Dr.-Ing. Albrecht Reuter at the "Insight Beyond" conference

As a prelude to the Ersa event "Insight Beyond", the presentation "100 % – Zero Emission by the middle of the century" occupied a special position. After all, it was about taking customers and business partners to the next technological level. Dr.-Ing. Albrecht Reuter could be won as keynote speaker. The Managing Director of the globally active Fichtner IT Consulting GmbH showed with his view "behind the socket" how zero emissions can be achieved by 2050.

By means of a lightning lecture, Dr. Albrecht Reuter introduced the participants to resource economics, pivoted to politics and sketched out various future scenarios with regard to the energy infrastructure to be built and thought the postulated energy turnaround through to its logical conclusion. But one after the other: From the fossil-driven resource economy based on gas, coal and oil, which has contributed significantly to global warming in the last 20 years alone, there must be a shift to a technology-based eco-system, he said. "The more RE technologies are installed, the lower the costs and the better the efficiencies – while conserving available resources," said Dr.-Ing. Albrecht Reuter. The challenge here is that renewable energies (RE) are supply-dependent, meaning that electricity production depends on the weather and demand. Digitization brings these into alignment, he said.

In the Paris Climate Agreement of 2015 and with the Green Deal of 2021, the global basis for climate policy was created, which stipulates a limitation of global warming to 1.5 to max. 2 °C by 2050. A good approach, but not sufficient – rather, additional CO_2 must be removed from the atmosphere, thus generating negative emissions. This is a huge effort that can only be mastered together and achieved through the participation of all within the framework of political processes.

One of the future scenarios presented was "green industry", in which industrial heavyweights take the lead on their own initiative to achieve CO_2 neutrality as quickly as possible. This is a trend that is increasingly evident in "green" capital markets, making it harder and harder for fossil fuel-driven projects. Whatever the further develop-

ment will be, sustainability and system competence will become key factors that need to be intelligently networked via digitization. And every single person, every single company and entire states are making their contribution. There is a lot to do – let's do it!

Fichtner IT Consulting Gmbh in figures:

- *Founded in 1922*
- *Project experience in over 170 countries*
- *225 mio. Euro total output (2020)*
- *1,500 employees worldwide, including over 500 at the headquarters in Stuttgart*

Dr.-Ing. Albrecht Reuter, Managing Director of Fichtner IT Consulting GmbH, headquartered in Stuttgart, during his presentation "Zero Emission" at the Kurtz Ersa Hammermuseum in Hasloch

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