



## ADDED VALUES & FUTURE SERVICES.

### DRIVEN BY KURTZ ERSA.

### Electronics Production Equipment

Productronica 2023: Overwhelming Response to Kurtz Ersa Products and Services

horus®: Solder Profiling for maximum efficiency in Electronics Production

### Moulding Machines

Plantera: Innovative Packaging Solution made from Sustainable Material

Alteams Finland: Casting Mission in the Far North

### Automation

VERSAFIT: Pressfit System allows Group Divisions to grow together further

Full flexibility: Dispensing Cell from SCHILLER AUTOMATION

GLOBAL. AHEAD. SUSTAINABLE.

 **kurtz ersa**



# e Team! On

## **One Team!**



Rainer Krauss and Thomas Mühleck

An eventful year lies behind us. Regarding both, our markets and the global economy, but also in terms of our organization and culture.

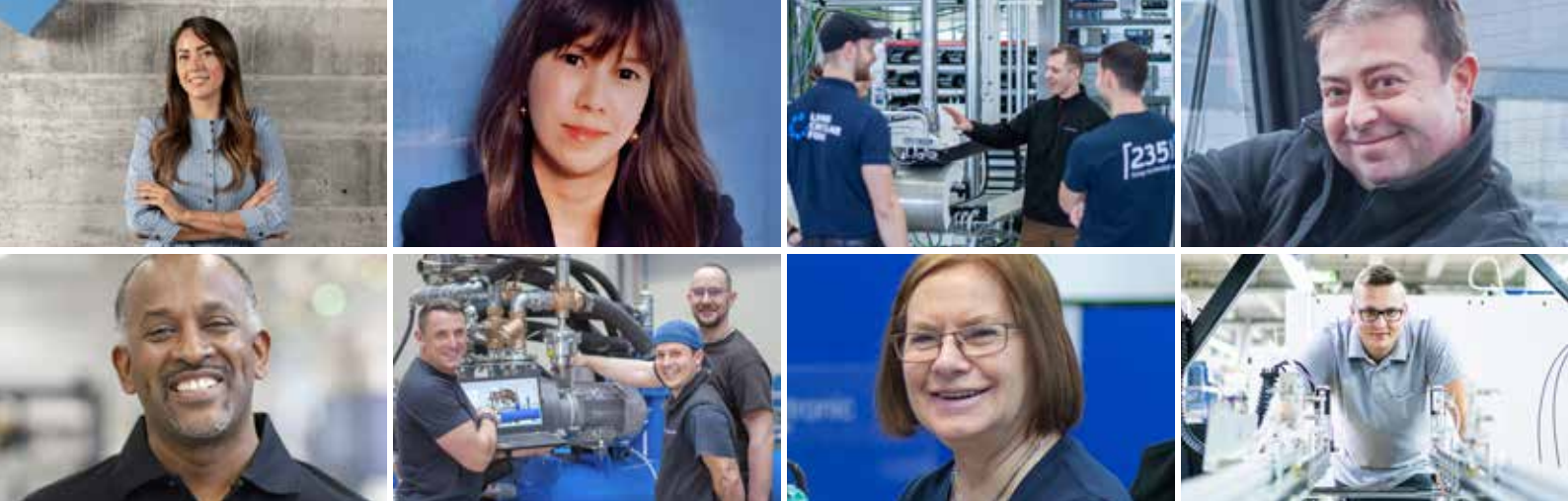
At the beginning of this year, we still saw a significant growth for complete 2023, in line with our long-term strategy. From the second quarter onwards, we have faced a remarkable contrary wind and China as our main market has turned around. Then the global economy gradually followed accordingly.

We have recognized the signs of the times and have shifted our focus from long-term product development back to customer-oriented applications. In doing so, we are placing you as our business partner even more in the center of our activities.

Culturally, we have taken a huge step forward. At Kurtz Ersa, responsibility is taken over where we are as close as possible to the market and our customers. The freedom of choice we have gained brings us speed and leads to the right solutions for you with a considerable shorter delivery time. This customers' magazine edition is showing many examples in this connection – choose the right application for you.







# Our Team! On

We are optimistically looking forward to 2024. An upturn in incoming orders is already noticed, thus, we are continuously investing in the future, particularly in the R&D area.

As a further sign of our intensive customer focus, I would like to take this opportunity as CEO to give the chance to speak to those responsible people who are very close to you, our valued customers. Today, I would like to start with my colleague Rainer Krauss, our Executive Vice President Sales for our global soldering business. He is also Managing Director of Global Point and Kurtz Ersä India: "Ersa's sales of electronic devices such as notebooks, smartphones and complete consumer electronics have been particularly restrained. However, the very good feedback at Productronica has shown that we offer the right solutions for our customers helping to shape and to push the overall global technology development."

Our leading trade fair, Productronica 2023, has once again confirmed that soldering technology sets standards – it is the driver of future technology trends such as smart homes, smart factories, new intelligent power distribution systems, green energy generation with alternatives for heating buildings or mobility in urban centers.

Electrification, digitization and automation characterize the soldering industry and our customers' needs in machine soldering, hand soldering and rework. We are constantly aligning our portfolio with our customers' requirements leading to a comprehensive consulting in the field of THT soldering, the newly developed press-fit technology as an alternative connection technology."

On behalf of all Kurtz Ersä employees, we wish you a Merry Christmas and a healthy and happy 2024!

Thomas Mühleck  
CFO und CEO a.i.

Rainer Krauss  
Gesamtvertriebsleiter Ersa, Geschäftsführer  
Kurtz Ersä India und globalPoint





# Kurtz Ersa makes significant progress in ESG rating

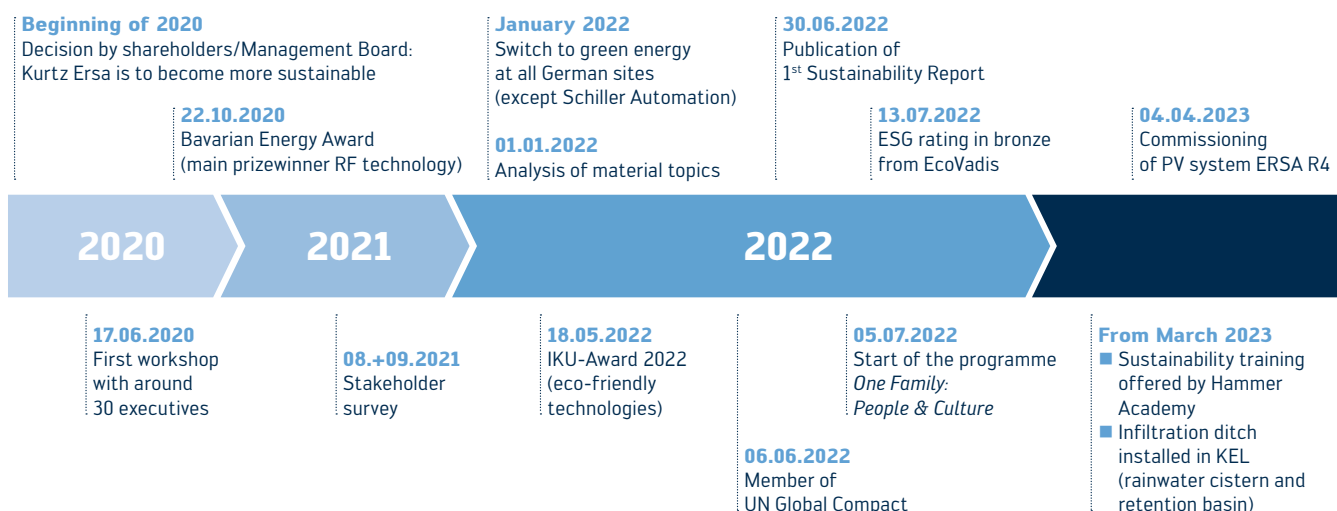
Since the start of the GoGreen250 sustainability initiative in 2020, Kurtz Ersa has already achieved many milestones and has thus come a big step closer to its goal of CO<sub>2</sub> neutrality by 2029. In order to have this further development validated externally and to obtain a neutral assessment of the status quo and possible improvements, the Group has been taking part in the annual ESG rating via EcoVadis since 2022.

ESG stands for Environment, Social and Governance and measures the voluntary contribution of companies to sustainable development that goes beyond legal requirements. In the first ESG rating, Kurtz Ersa received 48 out of 100 points in the overall assessment of four subject areas and was awarded a bronze medal. This year we were able to improve our score by 8 points – so we have achieved 56 points and are among the top 24 % of the companies in our industry assessed by EcoVadis. In three of the four categories (environment, labor and human rights and sustainable procurement), we were even able to

improve by 10 points each, putting us in the top 11 % of our industry in the environment category.

## How did we achieve this?

We achieved this significant improvement on the previous year by implementing many measures – the most relevant milestones are listed in our sustainability timeline. We would like to take a closer look at some of the measures here.





#### CDP rating:

Similar to the ESG rating, a company's environmental performance is assessed – however, the CDP rating focuses on the area of emissions, more specifically emissions according to Scope 1, 2 and 3. In the first rating in 2022, we achieved a "C" score straight away – a good starting point for our further progress. We also took part in the 2023 CDP rating on time, but we will not receive the result until early 2024.

#### E-charging infrastructure and electrification of our vehicle fleet:

In October 2023, a further twelve e-charging points went into operation – we now have a total of 70 charging points at our locations Kreuzwertheim and Wertheim, which can be used by our business partners, our employees and, of course, our vehicle fleet. This currently comprises 14 % electric cars and 13 % hybrid vehicles.

#### Various measures to reduce energy consumption:

Together with our energy teams at the individual locations, we are focusing on continuous optimization. In 2023 alone, we have, among other things, made a further large-scale switch to LEDs and replaced two heating systems and expect to save around 800,000 kWh of energy (electricity and natural gas) over a full year as a result.

#### Rainwater harvesting:

In order to be able to use rainwater in the future to reduce drinking water consumption, a 70 m³ rainwater cistern was installed during

the expansion of our logistics center. We use the water collected there as service water, which we expect to reduce our drinking water consumption by around 500 m³.

#### Integrated management system:

An integrated management system (IMS) consisting of ISO 9001 (quality), ISO 14001 (environment), ISO 45001 (occupational health and safety) and ISO 50001 (energy) has been in place at the German sites for many years. This has two advantages: Firstly, it gives us a valid database, and secondly, we can use this as a starting point for an international roll-out of the IMS at our global locations from 2024.

#### Code of Conduct:

In mid-2023, we revised our Code of Conduct – this applies both to us as the Kurtz Ersa Group and to our business partners.

#### International sustainability initiative "GoGreen250":

Our Group-wide and global sustainability initiative GoGreen250 has the overarching goal of CO<sub>2</sub> neutrality (Scope 1 and 2 and partly Scope 3) by 2029 to mark our 250th anniversary. Our data collection, the planning and implementation of our measures and the setting and tracking of targets are carried out internationally and are continuously developed.

The Global Board acts as a supervisory body, defines the strategy and decides on budget approvals.

#### June 2023

Commissioning of PV system at Kurtz

#### 15.07.2023

Commissioning of 70 E-charging points

#### Q3/Q4 2023

Go-Live LkSG software

#### 2024

Switch to biogas

#### 2029

250<sup>th</sup> company anniversary and carbon neutrality

2023

2024

2029

#### August 2023

Commissioning of PV system Ersa R3

#### 01.06.2024

Commissioning of PV system Logistic Centre

#### 30.06.2023

Publication of 2<sup>nd</sup> Sustainability Report, Kurtz Ersa Code of Conduct and go-live of anonymous complaint/whistleblower system

Further examples and details of our sustainable activities can be found in the current Kurtz Ersa Sustainability Report 2022.







**Kurtz Ersä Asia**

# Excellence in Service and Know-How as a Trademark

*China is moving up the value chain! It is the world's leading exporter of automobiles for the first time. Huawei is in the race for leadership in autonomous driving and at the forefront of 5G applications. SMIC is vying for the top spot in semiconductor applications.*

*These significant advances have transformed China's manufacturing landscape in recent years from average to high-tech!*



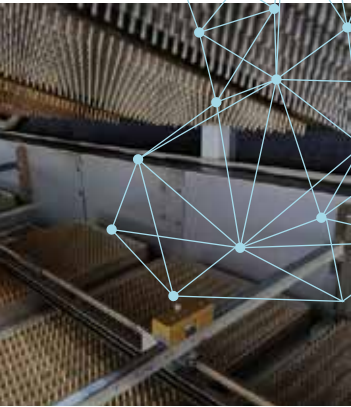
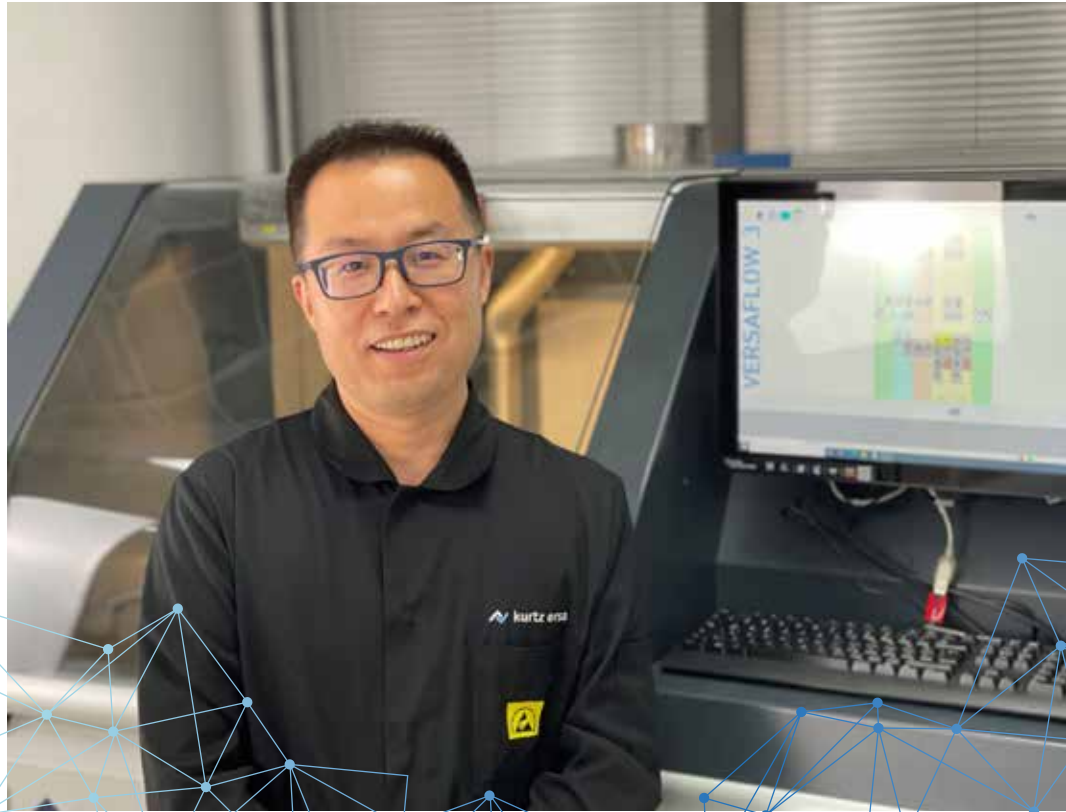
Especially in electronics manufacturing, which assembles, solders, and connects the PCB hardware for digital computing and communications, the demands and specifications have been steadily increasing and the contrasts have been growing. On the one hand, the components to be processed are getting larger (such as BGAs measuring 130 x 130 mm), and on the other, the components are getting smaller – such as 0402 resistors measuring 0.4 x 0.2 mm. This ever-widening process window requires high performance equipment and process know-how!

Aside from the technically challenging specifications mentioned above, the demands in China and throughout Asia for mass production and throughput on production machines haven't changed. Every tenth of a second

counts to gain a little more profitability in the traditional low-margin electronics manufacturing services industry. So, it takes both, high performance on the process side coupled with optimization for high volume production. At Kurtz Ersä Asia, we have more than 60 highly qualified and trained service team members to meet the challenges of the competitive Asian market environment. Most of them have been part of the Kurtz Ersä family for many years and have accumulated a vast knowledge base and a wealth of experience. In regular meetings, our service team has the space and time to share experiences, learnings and collaborate on tasks where more support is needed. With an open mindset, we try to foster the "wisdom of the crowd" – our "service crowd" – and strive to optimize every Kurtz Ersä

production machine to achieve the high performance for which the machine was built!

A highly dynamic market also requires a fast response time. Therefore, we have different channels through which customers can contact us – be it direct contact with one of our service technicians, the service hotline, the website or the WeChat channel. All of them focus on the customer and provide professional, fast and comprehensive support! Sharing and transferring process and operational knowledge is an essential part of our service activities. This is why we offer structured and easily understandable on-site training. All our trainers follow the Kurtz Ersä purpose of optimizing the production process of our customers!



We offer our customers or potential customers free access to our Application and Service Centers for NPIs or other process evaluations. The concept has been successful in our German headquarters and we have extended it to Asia. Here, too, the customer feels and understands the Kurtz Ersä added value at first hand. Together, our experts program the machine and optimize the program and all results are documented in an easy-to-understand report including videos. In Asia, we started in China with our application and service centers in Shanghai and later in Shenzhen and Zhuhai. From there we moved further south to Vietnam. In a few months, we will open a newly equipped and renovated center in Hanoi. In Q2 2024, a joint application and service center in Bangkok, Thailand will follow. Together with the ones

in Malaysia and Japan operated by our long-term sales and service partners, we have a strong foundation for customer support all over Asia! Consequently, training, knowledge transfer and support will be provided in multiple languages.

No matter where our customer's production is and what kind of machine there is, we promise to take care of the "health" of that particular machine. Since this year, we are rolling out our new service concept called "Health Check" which proactively focus on the "health condition" of the machine. Our service team will check the machine for wear and tear and other findings. Then we provide the customer recommendation on what to do to ensure the long life of a high-quality Kurtz Ersä machine! Unexpected

downtime can be avoided, and top performance and output is manifested. We live Kurtz Ersä purpose in optimizing our customers' production processes with excellence in Service and Know-How as a Trademark!

Kurtz Ersä Mexico

# Expanding Horizons with a New Manufacturing Facility

***At Kurtz Ersä, innovation is in our DNA. Our commitment to delivering cutting-edge solutions for the manufacturing industry has driven us to new frontiers. In a significant development, we are on the verge of completing a state-of-the-art manufacturing facility in Ciudad Juárez, Mexico, known as Kurtz Ersä Mexico Manufacturing (KEMM). Set to commence operations in April 2024, this factory is set to play a pivotal role in our global journey.***



Commissioning in spring 2024 - the new Kurtz Ersä Mexico production site in Ciudad Jerez

The heart of this factory will be the production of our next-generation reflow ovens, specifically the HOTFLOW THREE series. This marks a significant milestone, as it positions KEMM as our third-largest manufacturing location worldwide, following closely behind Germany and China. Why Mexico, you might ask? Albrecht Beck, President and COO of Kurtz Ersä, Inc., highlights the strategic advantages that make Mexico the ideal location for this expansion: "Mexico's central border location provides excellent connectivity and access to the strong local markets in the Americas. Additionally, Mexico is home to a pool of highly educated and motivated individuals, ensuring a skilled workforce to maintain our high German quality standards at a state-of-the-art factory."

Ready for new projects:  
the Kurtz Ersä Mexico team

The strategic significance of this expansion is underscored by our rapid growth in the Americas. The Ciudad Juárez plant will empower us to serve local customers more efficiently, reducing lead times, lowering freight costs, and reducing our carbon footprint. This expansion doesn't just offer an additional manufacturing location; it also creates redundancy in our supply chain. We're looking forward to the launch of operations at the new manufacturing plant in April 2024. The Ciudad Juárez facility will join our existing service and logistics hubs in Plymouth, Wisconsin (USA), and Guadalajara, Mexico, making it the third major service and logistics hub in our

global network. This expansion reaffirms our commitment to delivering innovative solutions to the manufacturing industry.

Our journey continues to be one of investment in cutting-edge technologies, expanding our global reach, and providing unparalleled service to our customers worldwide. The new manufacturing facility in Ciudad Juárez stands as a testament to our unwavering commitment to innovation and customer service, solidifying our position as a pivotal player in the global manufacturing landscape.







Joint ribbon cutting (from left): Roland Diehm (Ersa), Sven Rückert (Riedel Bau), architect Peter Menig, Kurtz Ersa Advisory Board member and building owner Rainer Kurtz, Carolin Kurtz (shareholder), Mayor Klaus Thoma, Thomas Mühleck (CFO/CEO a.i. and Managing Director Kurtz Ersa Logistics), Markus Schmidt (Warehouse Manager Kurtz Ersa Logistics) and Logistics Works Council member Andreas Alt.

# Kurtz Ersa Logistics opens extension

## Additional 3,300 m<sup>2</sup> of floor space including warehouse technology for higher output performance

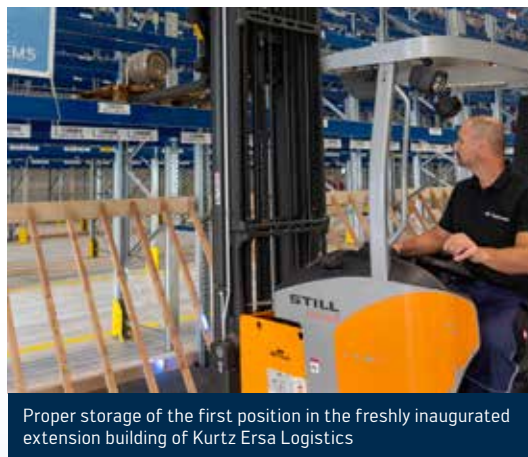
On October 06, the extension building of Kurtz Ersa Logistics was ceremonially inaugurated. Advisory Board member and building owner Rainer Kurtz welcomed mayor Klaus Thoma, the general contractor Riedel Bau and the architect's office Menig & Partner, members of the Kurtz Ersa management as well as the logistics team. "The groundbreaking ceremony was less than a year ago. I would like to thank everyone involved for this once again smooth construction process!"

CFO and CEO a.i. Thomas Mühleck seconded as Logistics Managing Director: "That was 'on time, on budget', what more could you ask for as a businessman? After opening our central warehouse in 2018, this was the next logical step to accommodate the increased business volume." After cutting the blue ribbon, a keg of rum was put into storage to great applause.

With the extension, Kurtz Ersa Logistics is now even better equipped for the prompt supply of its sites and customers at home

and abroad. The sustainability aspect also played a role – the hall roof is prepared for a photovoltaic system, there are four charging points for e-cars (trucks can be retrofitted as an option) and

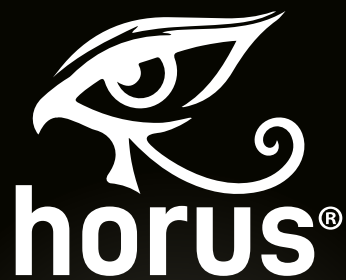
a cistern with 70 m<sup>3</sup> useful capacity for rainwater storage or drainage. 60 employees keep everything flowing – around 4,000 outgoing items are moved daily in 2-shift operation, and 38,000 items are currently in stock. As a result of the extension, the existing building grew by a further 66 meters to the south, gaining an additional 3,300 m<sup>2</sup> of usable space (11,300 m<sup>2</sup> in total). The warehouse technology was also increased: the wide aisle warehouse now has 7,900 Euro pallet spaces (+140%), the automated small parts warehouse 46,000 container storage spaces as well as three additional



Proper storage of the first position in the freshly inaugurated extension building of Kurtz Ersa Logistics

state-of-the-art picking workstations (max. +75% output). In addition, a 730 m<sup>2</sup> open area was connected to the material flow by installing a 2.5-ton elevator and three more warehouse lifts with 600 m<sup>2</sup> of storage area capacity were implemented.





## globalPoint horus® Profiling

# "State of the Art" measuring electronics for fastest profiling

globalPoint develops measuring systems for process recording, analysis and optimization as well as online monitoring in real time. With its precise, innovative measuring electronics and matching measuring boards, including intelligent, user-friendly software, globalPoint has been setting standards for all soldering processes worldwide for more than 25 years. At Productronica in Munich, the renowned specialist for innovative measuring systems presented horus® Professional Temperature Profiling, its new measuring electronics that

takes professional solder profiling to the next level and ensures maximum efficiency in electronics production. The time-consuming heating and cooling of a reflow oven during profiling, which can take up to several hours, is now a thing of the past thanks to horus®. With the new globalPoint measurement electronics, it is possible to create a finished soldering profile from the very first profile simulation. If this does not fit perfectly, horus® immediately provides an optimization suggestion.

The integrated autoprofiler can access a whole range of helpful information for its profile simulation. For example, soldering profiles stored in a database can be loaded from assemblies that have already been successfully soldered. Integrated libraries for solder paste and component specifications can be used for support, for example to comply with their limit values. And measurement data can be retrieved from the reflow oven and simulated soldering profiles can be transferred to the soldering system – and vice versa. The good part is

**The new horus® Professional Temperature Profiling measuring electronics impress with the latest technology for fastest profiling.**

**It can be used for reflow, wave, selective, vacuum and vapor phase soldering.**

that no specialist knowledge is required and even inexperienced employees can be guided through the simulation with assistance.

Access point access – the measuring electronics opens a WIFI hotspot to which the user can then connect. This is particularly helpful if the machine computer with the installed software is not accessible or administrator rights are required to carry out installations. The data can then be easily accessed via a browser – thanks to the responsive design, this is also ideal for mobile devices and Windows™ 11.

The horus® measurement electronics is suitable for machines from all manufacturers and can transmit the measurement data to a central location in the network. This means that all computers in the network can access it. Of course, only if this is desired. Otherwise, this function can be deactivated. The measuring electronics can be switched on directly on the device using a toggle switch. This ensures that no measurements are forgotten, as the operator does not have to start the software on the computer or on the device first. In all Erska reflow ovens, horus® Professional Temperature Monitoring will provide perfect data transparency in the future.

More under: [horus-profiling.com](http://horus-profiling.com)



The new horus® Professional Temperature Profiling measuring electronics can also be used with existing measuring boards and guarantees reliable thermal processes



globalPoint was awarded an outstanding second place at the "productronica innovation award" for its innovative horus® measurement electronics. globalPoint Managing Director Rainer Krauss (left) and Product Manager Marcel Buck after the award ceremony





# ***FUTURE SERVICES & ADDED VALUES***





Trends and innovative solutions in electronics production – Kurtz Ersä presented its product portfolio on around 600 m<sup>2</sup> as a combination of LIVE exhibits and interactive digital media

# ***Fulminant Productronica appearance for Kurtz Ersä***

**No.1 system supplier for  
electronics production  
presents innovative  
highlights in Munich**

Under the motto *“Future Services & Added Values”*, Ersä made a brilliant appearance at the world’s leading electronics trade fair Productronica – the four-day trade fair appearance was the absolute highlight of the 2023 financial year for Electronics Production Equipment which was characterized by numerous successful customer events, forums, seminars and webinars. The spacious booth,

which was open to dialog, was packed with visitors throughout Productronica, with customers and interested parties alike wanting to learn more about the innovations presented in detail. What all Ersä innovations have in common is that they are geared towards important market requirements and serve trends such as e-mobility, automation and sustainability. “We are clearly aligning the Ersä range of pro-

ducts and services with the strong dynamics in the market and are focusing closely on the needs of our customers worldwide,” said Ersä CEO Dr. Michael Fischer.

Central to this is the further development of the digital platform Kurtz Ersä CONNECT, for which Ersä has specifically expanded its digital service offerings under the keyword “Servitization” and which contribute significantly to





There was a large crowd at the booth at Productronica, which is always well attended, where Ersä presented numerous innovations

the optimization of the respective electronics production on the customer side. Based on a modular integration and presentation of all digital service offerings, Kurtz Ersä CONNECT can be used to optimize all processes, make them future-proof and significantly increase productivity. The service platform can be used regardless of location and device – and can be used for the entire Kurtz Ersä machine portfolio thanks to a consistent hardware and software infrastructure. Despite the focus on digital processes and automation, Ersä continues to place people at the center of all activities. Automated processes only serve to relieve personnel and optimize repetitive processes, which in turn leads to unit cost optimization. Highlights on the machine side in reflow soldering were the HOTFLOW THREE with patented cleaning system and maintenance intervals of twelve weeks or more – the HOTFLOW ONE as a new entry-level model and the high-end soldering machine EXOS 10/26, which reduces the void rate by a fantastic 99 % with 22 heating chambers and 4 cooling zones as well as a vacuum chamber after the peak zone, also attracted a great deal of interest. As a representative of the uniquely successful VERSAFLOW family, Ersä launched the VERSAFLOW ONE X-Series, a new entry-level model in the excellence class of selective soldering – with its x-variable axis system, it can be configured as a high-speed machine. A feature that is unique in this class! The new i-CON MK2 soldering stations from Ersä Tools, which were presented in a new design with a black housing

and also offer up to 20 % more performance for industrial hand soldering, were also well received. Like the smart IoT soldering station i-CON TRACE, the new Ersä soldering stations rely on the revolutionary tip'n'turn soldering tip technology, which enables fast and efficient soldering tip changes without any tools. Ersä GmbH's efforts to further develop its range of services, products and services were rewarded with several awards at the start of

the trade fair – including two SMT Technology Awards for the VERSAFLOW ONE X and the "Scavenger" in the rework sector and the "productronica innovation award" for the innovative horus® measurement electronics (second place for the 100 % Kurtz Ersä subsidiary globalPoint). "As a company, we are at the cutting edge: The Ersä team always offers top service for our comprehensive product portfolio – so we are always at least



In-depth expert discussions on all aspects of Ersä systems





Always the focal point at the booth: the VERSAFLOW selective world, here in front of the glass VERSAFLOW 4

one step ahead in order to realize the further developments we strive for with and for our customers,” said Ersä’s General Sales Manager Rainer Krauss at the end of the trade fair, who sees “taking care” of customers’ needs as an essential contribution to successful long-term partnerships. Another success for Ersä is the positive response to the VERSA-FIT system, with which press-fit technology is now also represented as an alternative

connection technology in the Ersä product portfolio. This means that Ersä customers can now also obtain press-fit technology “from a single source”, which makes integration into existing processes considerably easier.

*The numerous visitors and the great response from customers from Europe, Asia and North America were a highly visible success for Ersä at Productronica. The*

*planned or already implemented internationalization measures in India and Vietnam, which underline the company’s increasingly global orientation, were also positively evaluated by customers and interested parties.*



Accepting an SMT Technology Award on behalf of Ersä: Robert Schirmacher (left), Product Manager Selective, and Jörg Nolte, Product Manager Rework & Inspection



In the “Future Hub”, the digital services of Kurtz Ersä CONNECT and interactive product presentations could be explored and tested extensively on the 98-inch touchscreen



High-End Full Tunnel Nitrogen Wave Soldering Machine Erska POWERFLOW ULTRA with modular, flexible and individually expandable preheating concept variably configurable in length (up to 3,000 mm) and power

# Made Possible. Made Better.

System Supplier Erska hands over 1,000<sup>th</sup> POWERFLOW to Jabil's India site

***With more than 100 locations in 30 countries, Jabil is a leading manufacturing solutions provider. The global player generated net revenue of 34.7 billion USD in fiscal year 2023. Founded in 1966 in the U.S., the company's vision is to be the most technologically advanced and a trusted manufacturing solutions provider. Jabil manufactures for the world's 400 best-known brands in every conceivable industry – from consumer electronics to cloud equipment, automotive and household appliances to packaging.***

Jabil recently took delivery of another Erska POWERFLOW ULTRA in its location in Pune. The machine – which was ceremoniously inaugurated with a “lighting of the lamp” ceremony – was the 1,000th successfully installed wave soldering system worldwide, a milestone in its partnership with the global electronics company. Back in 2010, the then-Director of Operations, Mr. Sunil Naik, traveled to Germany to see if Erska's wave soldering technology would stand up to Jabil's stringent requirements. Specifically, the project involved a prestigious power electronics project. Quality is very important at Jabil, with a 25-year warranty on some of the PCBs they produce. Jabil is known for meeting high and strict product requirements – even and especially

in mass production. In this specific case, the POWERFLOW was chosen because of its full nitrogen tunnel, which helps meet high standards in soldering, productivity and dross savings during the process. “We have been using our first Erska wave soldering machine for 13 years now and the POWERFLOW still delivers excellent results – without any change in parameters – which is also due to its regular maintenance. This is the stability we look for when looking for a business partner for our electronics business,” says BN Shukla, Operations Director at Jabil in Pune.

The machines installed at Jabil run three shifts over six days – so they have to be robust enough to deliver the highest solde-

ring quality while handling the huge production volumes. “We realize the most complex ideas and products for our customers – so our Erska equipment must meet a wide variety of requirements for a wide range of products. At Jabil, we strive to make ANYTHING POSSIBLE and EVERYTHING BETTER – and we expect the same from our equipment



Jabil site in Pune



partners,” explains Avinash Nalawade, Manager Manufacturing Engineering at Jabil in Pune. Ers equipment has contributed positively to increased productivity by ensuring stable and high machine availability while maintaining flexibility. The reduction in process errors has also led to improved first-pass yield (FPY) at Jabil.

### ***Expansion of partnership planned***

The partnership between Jabil and Ers has now been in place for 13 years. Ers equipment helps Jabil achieve the highest productivity and quality standards. “Over the past few years, the presence of Kurtz Ers’s Indian team has helped Jabil handle installation, service and support efficiently. The presence of Kurtz Ers India’s Pune-based service staff has helped meet our expectations,” emphasizes Sandeep Thite, Manager Manufacturing Engineering at Jabil. With the rapid advancement of technologies, demand for miniaturization and energy-efficiency in industries such as 5G, mobility, and smart devices have increased. “To avoid downtime, Ers is setting up a warehouse for the hundred most important spare parts, because we want to be even closer to the Indian market. Via Kurtz Ers CONNECT, Ers Service now also provides direct support remotely – whether via our Indian office or directly from Germany. The customer gives the go-ahead for this at the push of a button and only for the duration of the support,” says Rainer Krauss, Ers General Sales Manager and Managing Director for Kurtz Ers India. In addition to the three POWERFLOWS, Jabil has also been using VERSAFLOW selective soldering technology since 2020, and two more VERSAFLOW 4/55s will be installed in Pune before the end of 2023. In the last four years, Jabil has tripled its sales in India – and forecasts for the development of Indian electronics production point to further growth, so the current production area of 79,710 m<sup>2</sup> (858,000 sq. ft.) will also continue to grow.



BN Shukla, Operations Director (right) and Rainer Krauss, Managing Director Kurtz Ers India, at the “lighting of the lamp” ceremony in the Jabil factory in Pune



Celebrating the new Ers machine: Jabil team in front of their Ers POWERFLOW wave soldering machine



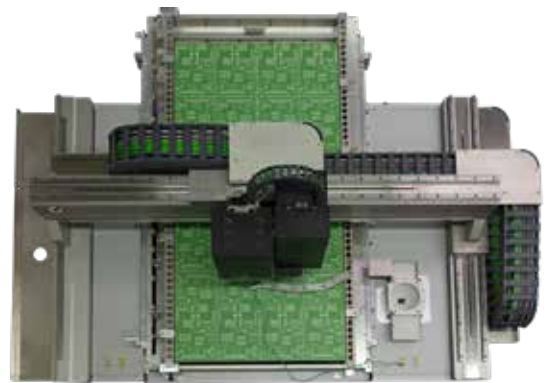
Operations Director BN Shukla (left) and Avinash V. Nalawade, Manager Manufacturing Engineering (front, white coat), with their new Ers POWERFLOW – for Ers, it is the 1,000th wave soldering machine in production





HR 600 XL expandable with Auto Scavenger and enlarged bottom heater

HR 600 XL with extended bottom heating for machining particularly large assemblies



# Highly Automated Assembly Repair for Sustainable Electronics Production

*Sustainable electronics production puts as many assemblies as possible from the manufacturing process into use in a functional manner. With a minimum failure rate. At the same time, the demands on production equipment are increasing due to constantly changing parameters. Electronic products should be durable and repairable in case of failure. Rework and repair have long been established – but many electronics manufacturers want even more automation.*

There are many causes for rework on electronic assemblies. The following reasons often lead to rework:

- Defect on the component
- Wrong component assembled
- Component assembled in wrong orientation
- Component badly soldered (bridges, open solder joints, ...)
- Component wrongly programmed
- Component is reused (recycling)
- Modification of assembly (redesign)
- Assembly as sample or component(s) are reassembled (prototyping)
- Tests on assembly, e.g. cross exchange (testing)
- Backup of component data from defective assembly (forensics)
- Insertion of more powerful components into the circuit (upgrading)

Mostly, manufacturers or users want to minimize the scrap of PCBs in order to save costs. But aspects such as sustainability are also becoming more important, because avoiding electronic scrap saves money and conserves resources. It is increasingly recognized that qualified rework makes technical and economic sense in order

to obtain functional, reliable assemblies again. This requires process know-how and suitable equipment. The trend is toward further automation, as qualified electronics production personnel are becoming harder to find.

## Automated repair process

For a long time, component repair was a matter for experts. Extensive measurements had to be carried out before a repair could be considered. Ersa therefore introduced temperature control directly on the component for desoldering and soldering processes at an early stage. In this way, a safe heating process is created right from the start after a target profile is specified – the temperature is tracked to the profile, and the target component is automatically removed.

At the same time, the automatic Ersa rework systems precisely place new components on the assembly: Component connections and landing surfaces are recorded with cameras, the target position is calculated, and the new component is precisely positioned by the axis system. Upstream, automated wetting of the components

with flux or solder paste is now standard. The system operator simply provides the assembly and new target component and selects the assigned data set to start the autonomous process.

## Extensible rework platform

Communication electronics and IT infrastructure rely on increasingly powerful circuit boards with high-quality components – this is where a repair pays off quickly. The HR 600 XL modular rework platform is predestined for this. The processing of large assemblies is designed for board sizes up to 650 x 1,250 mm with the expandable bottom heater and matching PCB holder. By means of matrix heating, the heating surface is adapted to the dimensions of the assembly and the power distribution of the preheating is dimensioned to the application. Exchangeable heating heads allow the system to be adapted – depending on component size and energy requirements. With the largest heating head with 150 x 120 mm effective area and 2,800 W total power, very large components can be desoldered and soldered in and a gentle upgrading process can be carried out.



The XL heating head of the Erska HR 600 XL is suitable for components with an edge length of up to 150 x 120 mm or for the simultaneous desoldering or soldering of two BGA components

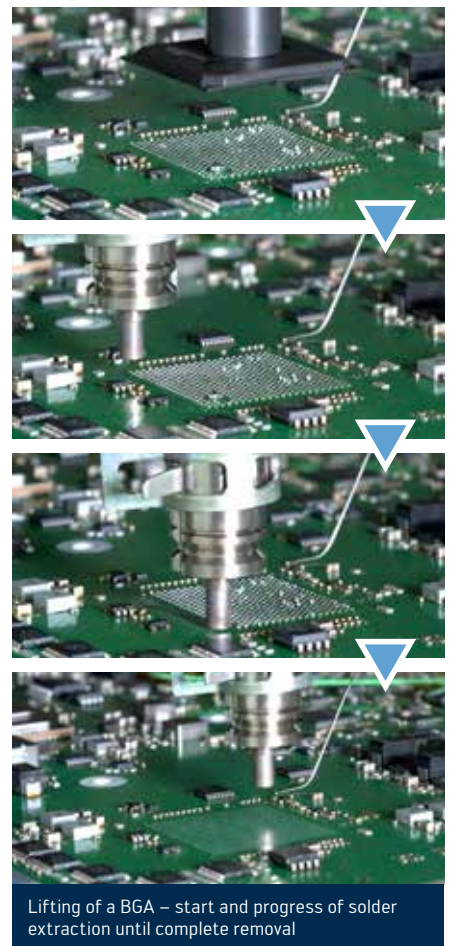
### **Functions for residual solder and measurement**

Additional functions for automated processes are available for the HR 600 XL platform and can also be retrofitted to existing systems. After desoldering a component, residual solder usually has to be removed. With the "Auto Scavenger" module, there is now a fully integrated functional unit for this purpose – immediately after removing the component, the suction nozzle of the

Auto Scavenger is lowered over the board and the residual solder is automatically extracted without contact.

There are also new developments in temperature detection: in addition to the proven temperature sensors (K-type thermocouples), there is now a non-contact sensor (Virtual Thermocouple, or Virtual-TC) to precisely control soldering processes. Usually, optical sensors measure different temperatures – depending on the surface condition. Erska initially teaches the Virtual-TC the temperature of a reference thermocouple. All subsequent soldering processes on the same assembly are safely run using the non-contact sensor. This is a huge advantage for customers who process many identical assemblies – the repeated application of a thermocouple is no longer necessary.

All Erska rework devices are controlled and operated via the cross-system software platform HRSOft 2. All process parameters are stored centrally and MES interfaces are defined. The path to further automation of rework processes is clearly marked out!



Lifting of a BGA – start and progress of solder extraction until complete removal





The Kurtz Ersa India team – here with Rainer Krauss, Ersa General Sales Manager and Managing Director Kurtz Ersa India (2nd from left) and some colleagues from Ersa Sales, who had traveled to Bangalore for the inauguration and to Productronica India shortly thereafter



Rainer Krauss (left) and Sameer Verma, VP Marketing & Sales Kurtz Ersa India, with Miss Pinky Gupta (front) at the "lighting of the lamp" ceremony marking the inauguration of the new Kurtz Ersa India Office



## Kurtz Ersa India moves into new office in Bangalore

After the successful establishment of "Kurtz Ersa India – Smart Production Technologies Private Ltd." in August 2021, the Indian team was able to move into its new office in the Electronic City in mid-September 2023. Located in the Bommasandra Industrial Area in Bangalore, the headquarters of Kurtz Ersa India is directly integrated into the new branch of the EMS service provider Krypton Solutions, with whom Ersa has been working successfully for over 20 years.

### Central hub for customer relations

Krypton Solutions' machine park, which is directly adjacent to the 180 m<sup>2</sup> India office, features Ersa stock machines as well as three new Ersa stencil printers of the VERSAPRINT 2 ULTRA<sup>3</sup> type. A perfect setting to demonstrate live to potential Ersa customers the possibilities of the different soldering technologies – from wave soldering to selective soldering to stencil printing. "The new office in Bangalore, one of the most important technology hubs in the country, will become the central hub for customer relations, technical support and sales activities. As big as the country is, so is the potential of Indian electronics production – we are pleased that we have been able to gain such a good foothold after establishing our subsidiary, including with our technology days in Chennai, Hyderabad, Pune and New Delhi, and that we are now becoming even more visible with our new India location," said Kurtz Ersa India Managing Director Rainer Krauss. The strategic expansion underscores machine manufacturer Kurtz Ersa's commitment to India – a market whose electronics production is estimated to be worth up to 87 billion USD by 2025, according to one study.





# Ready to go for two-wheeled e-mobility!

## Successful Ersa appearance at Productronica India

Ersa GmbH can look back on an extremely successful participation at Productronica India in September in the electronics metropolis of Bangalore. The trade fair team consisting of Ersa Sales People and colleagues from Kurtz Ersa India presented an impressive range of innovative solutions at the stand.

On the machine side, the focus was on the VERSAFLOW ONE, which marks the entry into the thousandfold proven Ersa selective soldering technology and carries proven Ersa technologies under its metal casing in the form of the most popular and most frequently ordered features. A real crowd-puller was an electric light motorcycle with a range of 120 km, presented for the first time at the Ersa stand, which is produced on Ersa soldering systems of the type VERSAFLOW (selective) and POWERFLOW (wave). Two-wheeled mobility is an important factor in India – around one sixth of global two-wheeler sales are concentrated here (16.2 million motorcycles in India in 2022). From 2025, two-wheelers with an engine capacity of less than 150 cm<sup>3</sup> must be emission-free. Around 630,000 e-scooters and e-motorcycles were already sold in India in 2022 – an increase of more than 500 %!

Other highlights included the i-CON TRACE IoT soldering station, which now also enables seamless traceability in manual soldering, and the HR 500 rework system for flexible desoldering, placement and soldering of SMT components. "Productronica India 2023 has once again confirmed that our products and solutions meet the needs of the electronics industry in the Indian market. We had countless highly interesting discussions with customers and interested parties – it is unbelievable what potential the Indian market offers for electronics production. The strategic expansion with the new India office in Bangalore was absolutely right," said Ersa's General Sales Manager Rainer Krauss.



The Kurtz Ersa booth at Productronica India in Bangalore



The absolute crowd-puller at the Ersa stand: the 120 km e-motorcycle, which is produced on Ersa VERSAFLOW and POWERFLOW machines



Ersa Tools presented the i-CON TRACE IoT soldering station and the HR 500 rework system in Bangalore

# Innovative solutions at Electronics & Application in Utrecht

*Electronics & Applications (E&A) is the leading trade fair for electronics and automation in the Benelux and has its permanent home in Utrecht. Over the years, it has established itself as the central meeting point for experts and innovators in the electronics industry. Held every two years at the Royal Dutch Jaarbeurs Exhibition & Convention Centre, the fair is a fantastic platform for companies to showcase their latest developments and technologies.*

At this year's show, we had the privilege to showcase our innovative solutions at the booths of our valued partners Conrad and Smans. The Conrad booth hosted an exciting soldering competition with around 80 participants – an

impressive response. In the competition, participants tested their soldering skills on the i-CON TRACE and at the same time convinced themselves of the performance and handling of the Ersa soldering station. The best time for the kit was less than six minutes, and two Ersa colleagues made it into the top 15 with around ten minutes. At the Smans booth, visitors were able to dive deep into the Ersa world – among other things, the VERSAFLOW ONE selective system and the HR 550 rework system could be experienced up close. We would like to thank the Conrad and Smans teams for the excellent cooperation and look forward to future opportunities to represent and advance our industry together!



## TUfast Racing Team Rollout of the xb023 at the Allianz Arena Munich

Excitement reigned at the end of May when TUfast Munich proudly presented its new vehicle, the xb023. Representing Ersa, colleagues Adrian Munkel and Marco Schöllig were on site and presented the congratulations on the great success, for which they had worked very hard over the last few months. After that, it was time to buckle up and hit the road, because in June the car was going to the race track at the Formula Student competitions! The goal at the end of the various competition categories was clearly defined – the team wanted to be at the top and rewarded for team spirit, ambition and perseverance. The sponsorship event was an exciting opportunity for our colleagues to experience the Formula Student runabout up close and learn more about its impressive performance. Employees had the opportunity to see the

car up close and talk to the engineers and drivers who played a key role in its development and success. They were able to ask questions, learn technical details and gain an insight into the world of motorsport. The car performed outstandingly well in the competitions, beating off strong competition. In the end, the TU Munich was able to successfully complete the 2023 season with six podium finishes – including one first place in the “Auto Cross” category! The TU team was supported with an i-CON VARIO 4 and matching accessories.



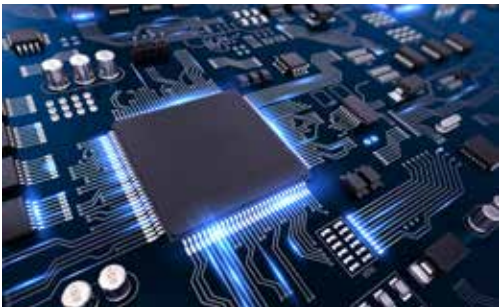
Ersa colleagues Marco Schöllig (right) and Adrian Munkel (2nd from right) with members of the TUfast team in the Business Club at the Allianz Arena in Munich

The Technical University will also be supplied with consumables in the future.





# Symposium „Soldering in Electronics Production“



On October 18 and 19, there was once again a full house at Ersa in Wertheim due to the two-day symposium "Soldering in Electronics Production"!

More than 60 participants arrived to benefit from the varied and attractive program. Topics this year were the processes and technologies of soldering and solder paste printing, basic materials engineering knowledge, and the reliability and properties of solder materials, PCBs and components. Numerous partners passed on their knowledge to the participants through technical presentations and demonstrative experiments. In addition, each technical lecture was followed by a short discussion session where participants had the opportunity to ask specific questions to the speakers. Many thanks to all partners for once again making the symposium a complete success with their valuable contributions!

## Partners 2023:

- ASSCON Systemtechnik-Elektronik GmbH
- Empa
- Fraunhofer IZM
- Heraeus Electronics
- Interflux Electronics
- Christian Koenen GmbH
- KSG PCB
- ams OSRAM
- Trainalytics GmbH



Strong participation at the "Symposium – Soldering in Electronics Production" at the Ersa site in Wertheim



SMT Nürnberg

# ERSA TOOLS PRESENTS MK2 STATIONS FOR THE FIRST TIME

In an industry that is constantly striving for innovation, a successful relaunch or market launch is of crucial importance. The presentation of our new MK2 soldering stations at the SMT in Nuremberg was a memorable moment that delighted experts and passionate hobbyists alike. The soldering stations were presented as reliable companions for precise soldering and impressed the audience with their innovative features. This relaunch showed that careful product development and an outstanding presentation can become the cornerstones of a successful market entry.

The launch of the new soldering stations at the trade fair also included unique innova-

tions – such as the patented tip changing system, which is now available for all i-CON stations and provides up to 20 % more soldering power, as well as an attractive new design and the impressive variety of the stations. The visual highlights contributed to the fact that the new soldering stations initially attracted attention on an aesthetic level and were then able to convince across the board technically. For example, with the i-TOOL MK2's innovative tip'n'turn tip changing system, which allows users to change soldering tips in no time at all without having to rely on tools. The quick and effortless removal and replacement of the soldering tips fascinated visitors to the

trade fair and made it clear how practical and efficient working with the new soldering stations is. By changing the heating element and tips separately, the tip'n'turn system is not only ecologically but also economically sustainable. Another highlight: The i-TOOL MK2 is compatible with existing stations!

The stations have been available from all Ersa distribution partners and agencies worldwide since 01.07.2023 – and have been in high demand ever since!



The Ersa team on site in Nuremberg, presenting the new products on the market





Kurtz Erska Asia received the Foam Expo China Award in the "Best Practice in Sustainability" category

## Kurtz Erska Asia honored with Foam Expo China Award

On November 2, Kurtz Erska Asia Ltd. received the Foam Expo Award 2023 in the category "Best Practice in Sustainability". The award recognized the radio-frequency (RF) technology of the Kurtz Protective Solutions division and the sustainable innovative development practices of Kurtz Erska Asia Ltd.

As a pioneer in the development of sustainable foam technologies, Kurtz Erska Asia Ltd. is committed to working with partners to create a smarter, healthier, safer and more sustainable future. This year, Kurtz Erska Asia participated for the first time in the Foam Expo China trade fair, which took place from November 1 to 3 at the Shanghai New International Expo Centre. At the same time, the company took the opportunity to apply for the Foam Expo Award with its RF technology – which was rewarded with a win the very first time it took part! The award ceremony took place on the second day of Foam Expo China, which is the only trade fair in China to focus on the further development of foam technology. The aim of Foam Expo China is to bring together the leading representatives of the foam industry in order to promote cooperation in the industry and thereby drive innovation. Kurtz's seamless RF molding process increases the production of EPS foam products and scores with energy efficiency and careful use of valuable resources. Kurtz is also working intensively to extend this technology to biodegradable materials in order to pave the way to a more sustainable future together with its customers.

A Chinese proverb says: "The road to success may be challenging, but persistence is key to realizing a better future." Let's write a new chapter in the development of sustainable technologies together!



Michael Chan (on the right), Managing Director of Kurtz Erska Asia Ltd. and responsible for the region Asia and China for the Moulding Machines division, accepted the award at the award ceremony at Foam Expo China 2023 in Shanghai



## *CornPack –* **innovative packaging solution** *for a more sustainable future*

Each and every one of us bears responsibility for the world we live in. It is crucial that we actively work to protect our planet today so that future generations can also live a life of dignity and prosperity. To do this, we must not only change our way of thinking – we must also take concrete action!

Plantera GmbH – development partner and customer of Kurtz Protective Solutions – has set itself the goal of developing and using sustainable packaging solutions made from cornmeal that have a positive impact on the environment. The raw material used, cornmeal, is not grown specifically to produce the packaging. Rather, it is a residual material from the milling process. Plantera is striving to revolutionize the packaging market and to offer an environmentally conscious, compostable alternative to petroleum-based packaging such as polystyrene, cork or wood. The customer and partner of Kurtz sees its task as providing high-quality and functional packaging while protecting nature and promoting a future worth living in.



*CornPack is produced using RF technology on a Kurtz WAVE FOAMER*

In cooperation with Kurtz Protective Solutions and the Kurtz WAVE FOAMER M Shape Moulding Machine, which uses the innovative radio frequency (RF) processing method, Plantera is able to develop sustainable packaging solutions. Thanks to this pioneering process optimization, production is extremely energy-efficient and leads to impressive energy savings of up to 90% compared to conventional materials such as EPS – and does not require any steam! The gentle RF process from Kurtz Ersä even allows the processing of highly sensitive materials such as cornmeal. The use of RF technology enables significantly improved fusion of the raw material. This leads to increased dimensional stability, which in turn allows the production of individual packaging solutions.



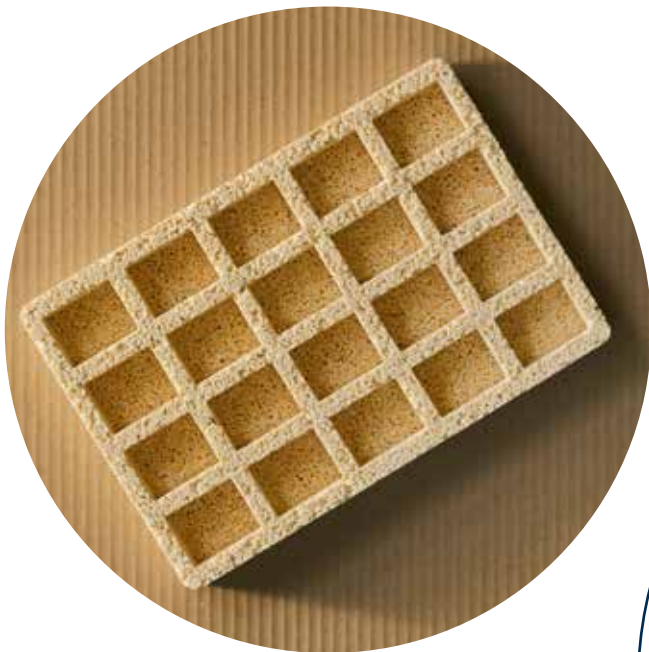


Maize grits production steps

The raw material for the CornPack product brand originally comes from the maize plant. Mill grinding produces a residue that cannot be used for food production. This unusable cornmeal is the raw material for CornPack. The cornmeal are puffed using a tried and tested process, which changes their structure. The addition of an organic binder enables the production of tailor-made molded parts. The wide range of possible applications allows Plantera to find solutions for numerous challenges. In addition, the company's products are adaptable for different purposes and industries and can be tailored to the specific needs of Plantera's customers. CornPack is based on an innovative manufacturing process that no other company in the industry has realized to date.

Switching to sustainable packaging solutions will be crucial for companies in the coming years. Governments and environmental regulators are tightening regulations and laws on pack-

aging sustainability. But consumers are also becoming more environmentally conscious and prefer products from companies that are actively committed to sustainability. The Plantera mission to leave nothing behind for future generations but a future worth living in is within reach with CornPack. We are proud to be able to support our partner in achieving this goal with our RF technology!



### CornPack as a product:

With CornPack, Plantera is setting a new standard for packaging with a sustainable packaging material that is compostable. After use, it can simply be disposed of in the domestic organic waste garbage can or garden compost. Industrial composting is also possible. The packaging produced is impact-resistant, break-proof, insulating, food-safe and can be made to measure. CornPack therefore offers a wide range of applications as product packaging, corner protection, displays, press seals or transport packaging for electrical appliances or furniture, as well as protection for temperature-sensitive goods such as food, pharmaceutical products, or pet food.



Images courtesy  
of the Plantera GmbH

Kurtz AL13-13SC

# CASTING MISSION IN THE FAR NORTH!



In order to be equipped for the future, Alteams Finland decided to invest in a new low-pressure casting machine from Kurtz. Joint discussions were held to determine how this casting machine, adapted to the needs of Alteams, should be equipped. The inspection of an almost identical machine at an existing Kurtz customer and the associated exchange of experience ultimately convinced Alteams across the board.

Alteams had clear ideas for the new machine and the requirements differed significantly from the existing systems on site. Ultimately, however, the final decision-making aid was practical experience and thus the inspection of a machine during production. The main focus of the practical test was on the furnace exchange: process and costs, how is an exchange carried out and how much time is required? In contrast to the existing systems, Alteams decided to work with crucible furnaces in the future. The main reason for this was the requirements for the cast part, for which an appropriate melt quality was a key factor. Refilling, cleaning, density index and melt analysis are all carried out in the crucible furnace. In order to increase production and be able to cast continuously, the decision

was also made in favor of an exchange furnace concept. The furnace is changed using a crane. Centering and coupling systems are installed on furnace and casting machine so that the exchange itself can be carried out as quickly and safely as possible. The furnace has a capacity of 1,100 kg and can be operated with one to five riser tubes. The riser tube is the direct interface to the mold, and temperature losses are avoided thanks to Kurtz's "DOM technology".

Alteams' main low-pressure products include electric housings with high quality requirements. Die cooling is another key factor in achieving such requirements. 16 regulated water cooling systems are used as main cooling system, supported by 16 air cooling circuits. The water cooling circuits can be blown out with air in-



1 Alteams Finland at the preliminary acceptance test at the Kurtz machine factory in Kreuzwertheim

2 From left to right: Robert Katny (Kurtz), Teemu Seppälä and Pauli Kestikievari from Alteams

3 Kurtz Low Pressure Die Casting Machine AL13-13SC at Alteams





## Highlights of the Kurtz/Alteams machine AL13-13SC

- Crucible exchange furnace with 1,100 kg capacity
- Use of 1 to 5 riser tubes via DOM system
- Manual on-site panel for teaching furnace filling level and pre-pressure determination
- 16 regulated water cooling systems
- 16 air cooling systems
- Cooling circuits can be used as mixed circuits
- Blowing out the water circuits with air
- All machine axes via measuring systems, no mechanical adjustment of initiators
- Recipe management for machine and casting parameters
- Parallel guidance
- Kurtz ejector system

dependently of one another at the end of each cooling cycle. The fact that cooling is controlled not only by time, but also and above all by temperature, is relevant to the process. In addition to the cooling time, 12 thermocouples determine the use of cooling. Recording the temperature prevents a cold mold from being cooled further.

Quality assurance is a top priority at Alteams. The function "Quality Management Sheet" enables the documentation of every single casting. Recording the data is not only the "birth certificate" of the casting, but also a reflection of the results and is used for process optimization. The machine was installed and commissioned in Laihia, Finland,

at the end of October and casting has been taking place since the beginning of November. We would like to thank Alteams for the trust they have placed in us and wish them every success for the future. Good luck!



Alteams-Site in Laihia, Finland

## About Alteams

Alteams started its operation already in the 1940s and has its roots in Finland. Since 2002, it has operated as a global team of around 1,600 employees in total (end 2022), with

production sites in China, Finland, Poland, and India offering the whole value chain, starting from R&D and design assistance to delivery of ready aluminum castings.

Alteams' customers are global market leaders in the communication network sector and leading multinational companies in power electronics, renewable energy, energy transmission and distribution, drive technology, industrial automation, marine engine and power generation, e-mobility and clean technologies.

Five different casting processes are used: High-pressure die casting, low-pressure die casting, gravity die casting, shell mold casting and sand casting. At the Laihia site in Finland, the focus is on low-pressure and high-pressure casting with about 100 employees. In future, parts for e-mobility and industry will also be produced here on the Kurtz AL13-13SC low-pressure die casting machine.

# And it does work: *GIGA-Press*



Kurtz Trimming Press: KPS2000/25-12SKT

While the removal of filters, gatings and overflows with trimming presses was a **MUST** for parts cast in high pressure so far, GIGA castings were not deburred using the proven technology at the beginning. Castings and required tools as well as presses were considered too large and not economically feasible. Now you could say: "And it works after all!"

Until now, Kurtz trimming presses have worked in die casting cells with a clamping force of up to 6,000 tons. Kurtz received its first inquiries about trimming GIGA castings with GIGA presses from Asia. Initially, the trimming of castings produced on high pressure casting machines with a clamping force of up to 9,000 tons was discussed. There are numerous reasons why to rely on the proven technology also for GIGA castings – i.e. trimming directly in the high pressure casting cell.

#### Detailed advantages:

- Less logistical effort
- Shorter trimming process, shorter distances and therefore less expensive
- Efficient process flow similar to existing automation sequences from the established high pressure casting process
  - Cost-efficient thanks to reduced footprint and fewer subsequent handling processes
  - Simple and safe operation
  - Quick findings regarding quality directly after the casting process

#### Trend back to the trimming press also recognizable for GIGA castings in Europe

The requirements for the GIGA presses were the same as before, apart from two challenges: the clamping surface – and therefore the size of the tool – and the weight. The necessary cutting force was available, as Kurtz had already built several presses with 300 tons of punching or cutting force. The

requirement for the clamping surface was 4,000 x 3,000 mm and the presses had to be able to hold tools weighing up to 25 tons. Whereas structural parts are mostly trimmed on presses with sliding/tilting table, the "standard" 4-column press is the preferred choice for these dimensions. The advantage of such a press is that less space is required in the high pressure casting cell. However, more attention must be paid to the burr removal during tool construction.

Despite the size of the presses, they must not slow down. Development in high pressure casting is known to be rapid – which means that the cycle times in casting are also becoming shorter. The press must not slow down the casting process. If you deduct the loading and unloading time of the press using robots, there is not much time left for the trimming process itself. Fast presses are therefore necessary, comparable to the well-known large presses from the Kurtz range. In addition to the standard requirements for presses, sufficient slider connections should be available due to the more complex shape of the castings. Previous experience shows that up to ten sliders can be required.

Kurtz benefits from its accumulated know-how in the construction of trimming presses and GIGA low-pressure casting machines in the design and building of GIGA presses. In addition to fast and powerful hydraulics, the main focus is on the software. The tool protection developed by Kurtz has proved its worth – and is especially applicable to GIGA presses. This is because damage and failure of large trimming tools are even more painful than is already the case with conven-

tional tools. We currently have inquiries for presses for installation next to high pressure machines with a clamping force of up to 12,000 tons. The requested cutting force is 400 tons.

Where the journey and the requirements for GIGA presses will take us remains to be seen. If the trend for presses picks up speed just as quickly as for high pressure casting machines, larger clamping surfaces and tool weights will soon be reality.



Kurtz Trimming Press KPS3000 for high and large-volume components



# *for GIGA casting!*

## **Equipment features Kurtz GIGA trimming presses:**

- Clamping surface: 4,000 x 3,000 mm
- Tool weight: 25 tons
- Cutting force: 300 tons
- Slider connections: 10
- Parallel movements
- Spraying unit system for minimum lubrication
- Tool protection
- Freely programmable speed profile
- Parameters saved in recipe management
- Transportable mobile panel
- Condition monitoring
- Consumption measurements
- Maximum energy efficiency thanks to speed-controlled motor-pump drives
- Simple maintenance
- Intelligent machine control
- Noise development/volume less than 75 dB(A)
- Central position for all consumables



Kurtz Trimming Press  
KPS2000/25-12SKT with  
sliding-tilting table function



Formnext 2023

# Kurtz Ersä Additive Manufacturing enriches the fAMily

Formnext, the world's leading trade fair for additive manufacturing in Frankfurt am Main, was once again an impressive showcase for innovation and progress in the manufacturing industry this year. The trade fair attracted visitors and exhibitors from all over the world and offered a unique platform for the exchange of the latest technologies and ideas. The Kurtz Ersä Additive Manufacturing division has joined this exciting environment for the third time.

Despite its comparatively short history, Kurtz Ersä Additive Manufacturing has undergone a remarkable development over the past ten months. The division, which specializes in metal 3D-printing, has been able to expand its team with a number of highly qualified specialists who have extensive 3D-specific expertise. For some of the new colleagues it has been the first Formnext participation under the Kurtz Ersä flag. They took part with great energy and enthusiasm. For the AM division it has been the third trade fair in a row.

At the trade fair, the Kurtz Ersä Additive Manufacturing booth was a center of attraction for interested parties and industry experts who were fascinated by the advanced 3D-printing solution using the "Perfect Angle Printing" process. As a highlight, Kurtz Ersä presented the Alpha 140, which was running in trade fair operation and impressively demonstrated the precise axis movements in the "Laser Powder Bed Fusion" process (LPBF). Included was an extensive collection of Alpha 140 components, which were showcased in a display cabinet. In

addition to high-quality animation videos, three large-format components produced on the Kurtz Ersä Flying Ray complemented the exhibition at the Kurtz Ersä booth. Visitors had the opportunity to marvel at the impressive exhibits on pedestals, which occupied around a third of the possible 1,500 x 1,000 x 500 mm installation space of the prototype system.

The dedicated booth staff held numerous high-caliber discussions, enabling the company to expand its network with valuable contacts. The participation in Formnext 2023 was a great success for Kurtz Ersä Additive Manufacturing and underlined the company's growing importance in the additive manufacturing industry. The excitement of now being part of the fAMily within the Formnext community was palpable for everyone involved. The event provided an ideal opportunity to showcase own innovations, learn from other industry leaders, and exchange ideas with them.



The new AM Managing Director Dr.-Ing. Astrid Rota with some of the Formnext 2023 booth staff: Michael Müller (left), Sales Manager Casting Solutions and Product Manager Low Pressure, and Sebastian Nitschky, Prototyping Research & Development





Dr.-Ing. Astrid Rota, new Managing Director of the AM division since October 1: "The successful outcome of the trade fair underlines our progressive advances in metal 3D-printing and consolidates Kurtz Erska Additive Manufacturing's position in the industry. It is encouraging to see our commitment being recognized." Looking back on her first weeks at Kurtz Erska, Astrid Rota says: "Our team has proven that it is highly ambitious passionate about additive manufacturing. I appreciate the challenge of leading a young and dynamic team and am delighted to be actively shaping the future of additive manufacturing for the industry."

Kurtz Erska Additive Manufacturing is already looking forward to the upcoming Formnext in November 2024. The division with start-up character is determined to expand its position as a supplier of metal 3D-printing and to continue its mission to constantly push the boundaries of what is possible in additive manufacturing. See you next year in Frankfurt!





Archive image of the powder coating plant in the days of Metallbearbeitung Wertheim GmbH

# From enclosure component supplier to automation hot spot

## Kurtz Ersä site at Reinhardshof completes conversion work

*The last ribbons have been cut, job done: In order to meet the significantly increased demand for commissioning capacities at Kurtz Ersä Automation, it was decided to extensively renovate the former powder coating hall – which was converted into an “Automation Area” in the process.*

The transformation of the Kurtz Ersä site at Reinhardshof is gathering pace in order to position itself as a leading provider of high-end automation solutions. A significant milestone was reached in November with the successful completion of the transformation of the former powder coating hall – four months of conversion work were enough to create an expanded commissioning and acceptance area for state-of-the-art automation solutions. Since mid-November, the old powder coating hall has been shining in new splendor in more ways than one.

Instead of the housing assemblies that were once processed daily and painted according to specific customer requirements, the Kurtz Ersä Automation team now checks through the latest innovations in robot technology and industrial systems here before delivering them to customers. The first stage of the conversion project began at the start of July with the implementation of modern and energy-efficient LED lighting. The coating of the industrial floor followed in the second week of August, followed by the painting work from the end of

August. The installation of a state-of-the-art panel heating system was completed in the second week of October. The “new hall” was finally given the finishing touches with extensive renovation work. A total of 739 m<sup>2</sup> of additional assembly space was created for Kurtz Ersä Automation, which has now been fully operational since mid-November. This ensures that Kurtz Ersä Automation can always offer its customers pioneering solutions and first-class service – especially when it comes to sophisticated automation solutions!



The new hall activates 739 m<sup>2</sup> of additional space for customer projects in the Automation Technology division





The Ersä VERSAFIT is the variable press-fit machine for the production of a broad product portfolio in press-fit technology

#### VERSAFIT specification

- Processing size: 508 x 508 mm
- PCB thickness: max. 8 mm  
(integrated PCB thickness measurement)
- Height of the PCB superstructures:  
max. 120 mm
- Height of the PCB substructures: max. 60 mm
- Transport height: 800 – 1.100 mm
- PCB weight: max. 8 kg
- Machine height: 2.400 mm
- Max. pressing force: 50 kN
- Tool rotation and change
- Camera-based coordinate correction

### Press-fit technology

# Pressfit system VERSAFIT allows Kurtz Ersä to grow together further

***As an extension of the product portfolio - in addition to the world-renowned and technologically leading soldering machines in the areas of wave, selective and reflow – Electronics Production Equipment launched the project "Machine for pressing components into printed circuit boards" under the name VERSAFIT.***

The VERSAFIT is the variable press-fit machine for the production of a broad product portfolio in the application area of press-fit technology. Optionally expandable for maximum flexibility in the processing of press-fit components, ideally suited for a production environment in inline or batch operation.

The latest member of the Kurtz Ersä family was a great asset in the realization of this project – SCHILLER AUTOMATION GmbH & Co. KG. With more than 45 years of experience as a special machine manufacturer of assembly automation, it was quickly decided that a division of tasks would be the best solution for the new VERSAFIT. And this is as follows: In the future, Ersä will take over the sales and product management of VERSAFIT, continue to serve its known customer clientele and open up new markets. Ersä will thus remain the mouthpiece to the market in order to recognize and implement individual requirements at an early stage. SCHILLER AUTOMATION, on the other hand, is responsible for development, control system construction, software

development and machine production through to final commissioning at the customer's premises. A third member of the Kurtz Ersä Group is also involved in the project. Kurtz Ersä Automation GmbH is supplementing the VERSAFIT with the necessary peripherals such as transport systems, turning units and buffer sections.

In the meantime, several systems have been delivered to customers. The knowledge gained from this and great feedback from customers have led to our experts already working on the further development of the product series. Customers will benefit in particular from the modular design and thus from solutions that are individually tailored to customer requirements. The aim is also to enable customers to reuse existing tools in order to keep the overall investment as low as possible. Visitors were able to see the result of the successful collaboration between Ersä, SCHILLER AUTOMATION and Kurtz Ersä Automation live on site at Productronica 2023 in Munich.



# Dispensing cell for the final assembly of electronic components

The newly designed, highly flexible dispensing cell from SCHILLER AUTOMATION opens up additional opportunities to enter our target markets in relevant areas such as automotive, sensor technology, power modules, technical building equipment (TGA) and medical technology.

Target customers include electronics manufacturers who carry out the final assembly of electronic modules and often use adhesive processes for gluing, fixing or potting processes to protect the electronics from environmental influences. Particular attention was paid to the flexibility of the design and software, which is highly valued by our customers.

To this end, we work together with several specialized partners for dispensers, material preparation and conveyor systems, with whom the optimum customer solution for almost all applications can be implemented. The freedom of the dosing technology provider, combined with numerous special functions, is a unique selling point. By integrating the dispensing axis into the path control, it is possible to run contours at the optimum speed and regulate the dispensing quantity to the appropriate volume depending on the contour shape.

SCHILLER AUTOMATION's more than 45 years of experience in the development and manufacture of automation solutions – from stand-alone cells and complete automation lines to general contractor activities – help customers to develop long-term solutions. The advantage of getting everything from a single source means that future-oriented measures, such as subsequent conversion measures from a stand-alone cell to an interlinked complete line, can be implemented with ease. The modular cell design also enables, for example, a dispensing cell solution including handling and assembly system in the smallest of spaces.

The supplied control system allows dispensing programs to be created quickly and easily without having to rely on the help of external specialists.

## Advantages at a glance

- Everything from a single source
- Flexibility thanks to many years of experience in in-house development and cooperation with several partners
- In-house software development and autonomous operation of the cell
- Complete process monitoring:
- Needle measurement
  - Color inspection
  - Dispensing quantity measurement
- Cleaning and rinsing
- Dispensing bead control with image processing



 kurtz ersa





Together on one stand: Kurtz Ersa Automation with partner Vision4Quality



Cobot in action: handling a circuit board for electronics production

## Motek 2023: Focus on innovations & partnerships!

Kurtz Ersa Automation  
was in a “trade fair mood”  
after successfully completing  
automatica 2023 and  
spontaneously jumped on the  
train to Stuttgart for  
Motek 2023.



Motek in Stuttgart once again proved to be a dynamic platform for the European mechanical engineering industry. The entire Kurtz Ersa Automation sales team was also eager to attend. It was their second trade fair appearance this year after the successful presentation at automatica in Munich and their first visit to the Stuttgart trade fair. Kurtz Ersa Automation gladly accepted the return invitation as co-exhibitor of its partner Vision4Quality, which had previously co-exhibited with Kurtz Ersa in Munich in June. The joint stand was compact and yet full of innovations! The presentation area was dominated by the exhibits – namely a cobot handling system and two individual workstation systems with AI-supported worker guidance – which ensured a permanently high visitor frequency. The interlinking of the exhibits generated a great deal of interest and stimulated in-depth discussions about possible collaborations and future projects. In addition to presenting its own products and solutions, the focus was on presenting itself as a complete project implementer in the automation environment. The trade fair was also an excellent platform for getting to know the latest trends and innovations in the industry and aligning them with our own roadmap.

Motek 2023 thus confirmed its role for our division as an important platform for networking and sales in the field of automation technology. Very interesting projects were discussed during the trade fair, which offer promising opportunities for future partnerships and collaboration. Head of Sales & Business Development Andreas Fischer is certain: “We’ll be back next year!”



Intensive discussions at Motek 2023: Individual systems and overall concepts were the subject of lively discussion

# Kurtz Ersa honors 47 company anniversaries

In mid-September, the Kurtz Ersa Group held its annual jubilee celebration at Bronnbach Abbey for the third time. The festively decorated Bernhard Hall of the former Cistercian abbey provided the fes-

tive setting to honor 47 company anniversaries for their many years of loyalty to the company. In addition to the management, members and shareholders also took part in the event.



**45 years in the Kurtz Ersa Group:** Waltraud Häfner and Jürgen Rüppel (both with flowers) with the management



**40 years with the company:** Ulrike Duddek and Tilo Keller (both with flowers) with the management



**35 years with the company** (from left): Joachim Kraft, Michael Schwab, Peter Lehmann, Jürgen Schlessmann and Udo Kirchner (all with flowers) with the management



**25 years with the company** (from left): Eckhard-Heinz Ruff, Uwe Spielmann, Inge Ries, Matthias Dänecke, Hakan Temiz, Sebastian Englert, Mira Adelmann, Udo Münkler, Maria-Luise Grein, Oliver Graf, Uwe Ackermann (all with flowers) with the management. Missing on the picture: Jürgen Friedrich, who was active for Ersä on the day of the anniversary ceremony



**20 years with the company:** Alexander Trippel from Ersä (with flower) – missing: Eduard Oleinikow (Automation)

**All Kurtz Ersä jubilarians with 15 years of service** (from left): Evelyn Wiegand, Anneliese Fahle, Benedikt Schebler, Fabian Schulze, Rudolf Richter, Stephan Beck, Dennis Brick and Jörg Schneider, framed by the management



**All Kurtz Ersä jubilarians with 10 years of service** (from left): Stefan Schöffler, Florian Helfenstein, Artur Eine, Torsten Schwab, Tom Kühlinger, Said Magdi, Nicolai Böhrer, Christin Wolz, Elaine Sandvoss, Rafael Zwiesler, Elisa Rüppel, Fabian Diehm, Marco Behl, Ulli Behner – framed by the management



# WORLDWIDE PRESENCE.

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## Technology fan?

In the HAMMERMUSEUM the history of Kurtz Ersa comes alive – experience the enthusiasm for technology with which we are also successfully on the move in the 21st century. Please refer to our website for current opening hours.



## Kurtz Ersa HAMMERMUSEUM

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