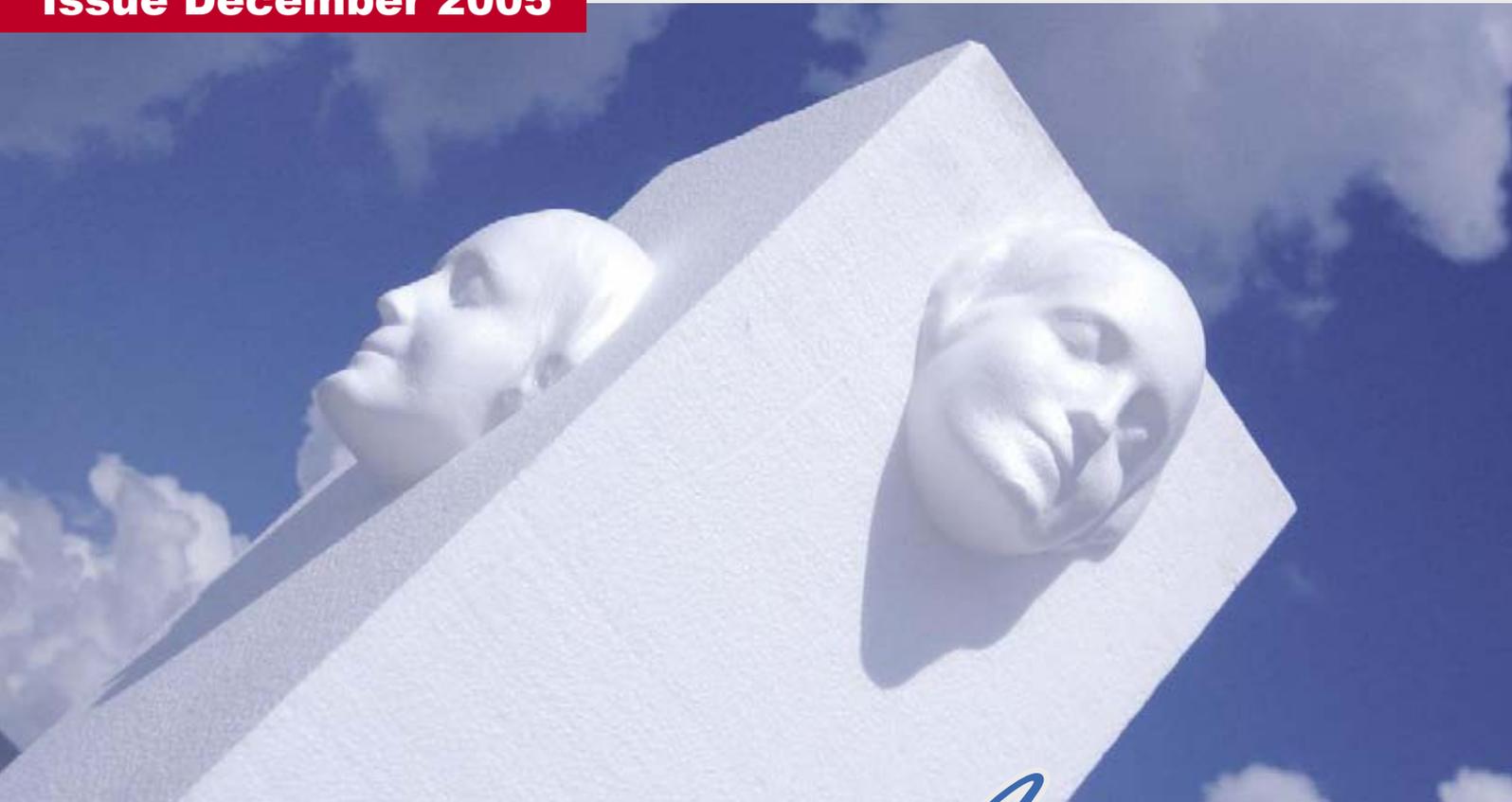


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Mini-plants enter production sites

www.kurtz.info

www.kurtz.de

www.ersa.de

EDITORIAL

HIP is starting



Dipl.-Ing. Walter Kurtz, Dipl.-Kfm. Bernhard Kurtz, Dr.-Ing. Rolf Hallstein, Dipl.-Ing. Markus Rosenthal, Dipl.-Ing. Rainer Kurtz

In the first year following our 225-year company anniversary, things became rather turbulent again. We want to be leading innovators in all our business areas. This is our mission, which is lived out by all our employees. In this issue of Kurtz News, we are once again proud to present some milestones along our successful journey down this road.

The strategy for forward progress in the components and systems division was impressively highlighted by the takeover of Ernst Bröer GmbH by MGM Metallgiesserei in Mannheim, and the construction of a new “greenfield” factory for MBW Metallbearbeitung in Wertheim. Tough, at the same time, we had to implement some cost reduction programmes – especially at the KURTZ GmbH foundries – while at times facing high workloads.

Working together with the aluminium foundry, our foundry machine constructors developed a new shuttle machine, for which a major order was placed from Indonesia even before completion of the prototype.

In order to further promote these two business areas, with effect from 1 January 2006 Dipl.-Ing. Markus Rosenthal will be appointed Vice President of the KURTZ GmbH and will be responsible for all foundry specific issues as Director Foundry Technology within the Kurtz Holding.

After a slow start at the beginning of the year, by the summer the particle foam machines division was back on track, and in October, together with our customers we were able to host a very successful in-house exhibition.

The soldering and inspection technology division increased its turnover from machine construction by more than 30% compared to the previous year. The year ended with the biennial leading world trade fair, “Productronica” in Munich, which we combined with a very successful international sales meeting with our sales and service partners from all over the world.

All in all a lot of work, and a lot of dedication.

All this has been in the context of substantial sacrifices by employees, especially where costs were not in line with the revenue earned. This is a powerful example for us of how flexible the team of the Kurtz Group is.

Based on the experiences gained in the past and the challenges facing us, and not least from dialogue with our customers and employees, we want to continually improve ourselves. To realize this target also in a way which is acceptable to our employees, we will be starting “HIP” in the new year.

HIP stands for “Hammer Innovation Programme”. The “Hammer”, the origin of our group of companies, together with the word “Innovation”, illustrate the intended scope and dimension of this programme. We want to maintain tradition and at the same time continue to expand our leading position as innovators taking giant steps forward.

Before this programme will start in January, we want to use the Christmas and New Year season to take a break and prepare ourselves for the challenges of the new year.

We want to thank all our employees for their understanding of the fact that our targets are becoming ever more demanding, and that so many have shown such incredible dedication, ensuring that these objectives really can be achieved.

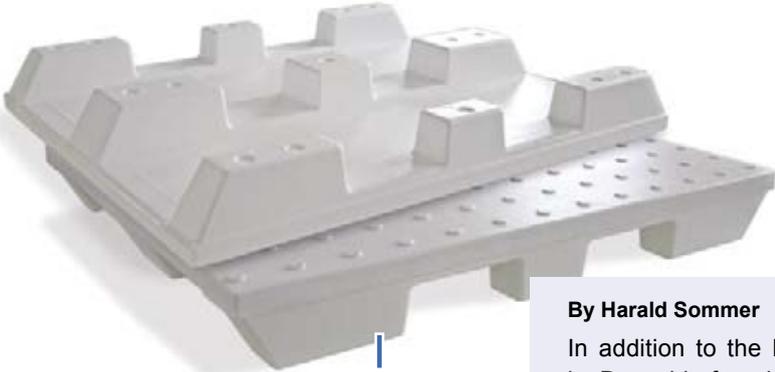
Of course, we also thank our customers and suppliers for our good working relationships with them, and we would like to become even better partners in 2006.

Good luck!

W. Kurtz
Markus Rosenthal
R. Hallstein
B. Kurtz

“Summit” at KURTZ in Kreuzwertheim

Over 700 visitors from all over the world



EPS transport pallet, two-sided skin moulding

The traditional in-house fair at KURTZ in Kreuzwertheim was held at the end of October.

By Harald Sommer

In addition to the K' plastics trade fair in Düsseldorf and the Plast in Milan, this event has become a meeting place for the plastics processing industry. And so this year we have adopted the motto: Summit at KURTZ, emphasising KURTZ's position as a world market leader in machines for the processing of particle foam materials.

Besides presentations of our current range of innovative products, customers and interested parties were given specialist talks on the latest technologies and research outcomes in the processing of EPS, EPP and copolymers. In order to establish further synergies within the Kurtz Group, the in-house fair was held this year together with the business departments Foundry Machines and Components & Systems.

KURTZ enjoys an outstanding reputation in the area of aluminium low-pressure casting machines, especially in the automobile supply division. For example, V8 to V12 and R4 to R6 engine blocks and cylinder heads are cast on KURTZ machines.

In the Components & Systems Department, complete components of cast iron, cast aluminium and lightweight sheet metal are produced.

KURTZ has a tradition of in-house fairs, and a loyal following has been built up. Over the three days more than 700 visitors were welcomed from 33 countries, including China, the USA, Russia and South Africa.

In the days and weeks prior to the event, interest ran high, far exceeding expectations. On the three days of the exhibition itself, visitors were informed about the latest technologies and machines. There were several specialist talks and also live demonstrations of the machines, some of them under production conditions in the assembly hall in Wiebelbach. Therefore it is not surprising that the visitors included a veritable Who's Who of the various manufacturing sectors.

KURTZ also used the excellent opportunity of the in-house fair to draw to a fitting conclusion the exhibition staged as part of the "Art and Culture at Kurtz" series of cultural events. The exhibition displayed works by two American artists, the married couple Prof. Michael Bishop and Lynn Criswell, who in their unique way brought together the variety of materials and process technologies of the Kurtz Group. "A sculptor working with Styrofoam and a painter painting on stainless steel tread new paths and open hitherto unimagined doors," said Prof. Hellmann of Johannes Gutenberg University in Mainz, in his speech in praise of the exhibition.

The inspiration of the art, which stimulates dynamism, arouses emotions and promotes communication, as described by Walter Kurtz (Dipl.-Ing.) in his words of welcome, was the main topic for discussion by the many guests in the legendary stairwell party, held on the Friday evening in the administration building in Kreuzwertheim-Wiebelbach.

(page 4 and 5)



Apart from product presentations and specialist talks a major issue was also exchanging experiences and cultivating friendships within a relaxed atmosphere.

Innovation + Communication =

Art

By Walter Kurtz

How does a purely industrially-oriented group of companies such as the Kurtz Group become involved in art? A group which today claims to be dedicated to the outsourcing of fringe areas and concentration on core competences?

Culture has long been important at Kurtz, for over 225 years. But art is also modern! As is the Kurtz Group – a multifaceted high-tech entity with a worldwide presence. And this is the connection: the creation of art is an innovative process. This creation of the new is a daily challenge for our employees. Innovations are the basis of the continued success of our company. Therefore new products are being produced daily, whether in the foundries or the engineering departments. This is what links engineers, mechanics and staff with art and artists. And this is why the Kurtz Group is so keen to be involved in art and culture: to promote

— *Some think it's revolting while it sets others thinking.
Art at Kurtz by Lynn Criswell and Michael Bishop.*

— *Particle foam materials from a different point of view
- a familiar material as an object of art.*



innovation, to show new perspectives, to provide new communication platforms and thus, ultimately, to improve results.

And the fact that renowned artists such as Lynn Criswell and her husband, professor of art Michael Bishop, were prepared to leave their own continent and give up their summer holidays to spend five weeks producing works for an art exhibition with the cooperation of Juliane Dörr, providing support and interpreting services, shows the value of this coherent overall concept.

There is no doubt that the special attraction lay in creating or producing art "industrially, under series production conditions", in industrial premises and as part of day-to-day processes. It most certainly also lay in the challenge of working with materials such as Styrofoam, which is not normally associated with works of art.

But ultimately it was the people who ensured the great success of the project. Our employees, who, despite holiday periods, pressure from deadlines and limited space, conjured up a "workshop" for the artists.

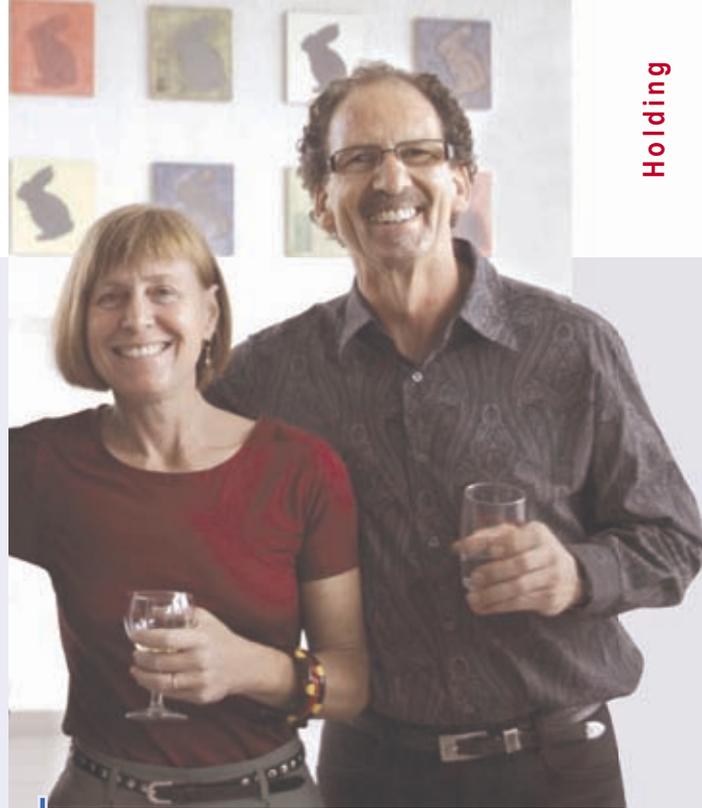
And of course, Lynn and Michael themselves, whose open and friendly manner built firm bridges to enable communication.

What is art, how does art come about, what is art for, and what is the connection between art and the Kurtz Group?

We are proud to present a catalogue which records and shows how creativity

and the will to innovate points the way to setting out on new paths.

With our industrial gallery and the "Art and Culture at Kurtz" programme we have taken another step on the way to success.



Lynn Criswell and Michael Bishop

The Kurtz Group continues to grow

MGM GmbH takes over Ernst Bröer GmbH



ERNST BRÖER GMBH
ALUMINIUMGIESSEREI

With effect from 1 August, MGM Metall-Giesserei-Mannheim GmbH has taken over the active running of the business of the Ernst Bröer GmbH aluminium sand casting foundry in Schwetzingen.

By Ulrich Mauerwerk

Production plant and jobs will be moved from Schwetzingen to Mannheim by the end of the year. All employees will be taken on by MGM, increasing the number of people working for the company from 55 to 66. Production at the Schwetzingen works will cease.

The take-over of the Ernst Bröer GmbH aluminium sand casting foundry opens up many new opportunities for MGM. The increased size of the company will make it easier to withstand the huge downward

pressure on costs and to satisfy increasing demands. Added to this, planned investments will further strengthen the Mannheim business.

MGM Metall-Giesserei-Mannheim GmbH is a company with a long history. The foundry has operated from the Mannheim-Neckarau industrial zone since 1896 and is the largest foundry in the business serving external customers' requirements. The company's core competence lies in aluminium and non-ferrous

heavy metal castings, using the sand and centrifugal casting processes. The major client sectors are the medical, rail transport and plant and machinery manufacturing industries. MGM products are also used in the construction industry.

This efficient company is DIN EN 150 9001:2000 certified and a registered supplier of cast aluminium and non-ferrous heavy metal products for the Deutsche Bundesbahn, the German national rail network.



– The programme for continuous improvement of the Kurtz Group

By Rainer Kurtz

In everyday speech, HIP brings to mind a popular brand of baby food. And in other circles, “hip” also has connotations of “cool”. However, in the context of the Kurtz Group, these three letters mean

something else, even though it does also reflect something fundamental and yet totally up to date: HIP stands for the Hammer Innovation Programme, on the basis of which Kurtz is seeking to con-

tinually improve itself in the coming years.

HIP should help Kurtz Group companies to ensure future growth and increase profits.

The aims of HIP

Satisfied customers

as the Kurtz Group is a partner providing added value for its customers

Satisfied employees

due to safety and quality of the workplace and opportunities for salary increases

A strong Kurtz Group

assuring the future, targeted growth and increased profits by avoiding waste of all kinds

The *HIP* building blocks

HIP will help to find the best path to the summit chosen, using the most effective instruments

Staff development

By introducing a staff development concept, the opportunities for training and continuing development of employees are improved. We want employee qualifications and the requirements of our job definitions to be as closely matched as possible. By internal communications and wide-ranging training measures, the management style should become more up-to-date, more cooperative, and exemplary. In addition, the staff development concept includes long-term staff planning, fair performance assessment and proper information distribution systems.

Information

When our employees were questioned, it emerged that they felt they were not kept sufficiently informed to be able to carry out their work optimally. We therefore decided to inform our employees monthly, by department, about all essential procedures in the company, including target-performance comparisons, organisational changes and any other essential changes in connection with health and safety at work, regulations and hygiene.

Innovation

Our claim to be a leading innovator in all Kurtz Group business areas is supported as part of the HIP programme by a customer relations management system based on an SAP platform. We consider knowledge of our customers' requirements to be the basis of all innovations. Though we also want to continue the steps which have already been taken towards improving our methodological knowledge management systems. By introducing more personal responsibility for the Central Technical Division, improvements in synergy effects can be further developed. In all business divisions, the capacity requirements for employees involved in development will be determined by company-wide road maps.

Continuous improvement

There has been a suggestions procedure in operation for some time, with different degrees of emphasis, in the various works of the Kurtz Group. We decided to adapt the existing programmes, substantially speeding up the processing and implementation of employees' suggestions and increasing the reward system. In addition we want to introduce a continuous improvement system with permanent effect. With the help of an external consultancy practice we intend to implement methodological knowledge of the Kaizen system, known in Japan for over 50 years. With this knowledge we will establish projects to avoid waste and to improve our business processes.

In order to install HIP effectively and broadly throughout the whole of the Group, in the coming year selected employees will be given training to become "HIP coaches".

These specially-trained employees will then be in a position to receive and act on HIP proposals and HIP projects in a targeted and efficient manner.

We hope that all Kurtz Group employees will be motivated by HIP to contribute their ideas and their dedication to the improvement process.

As a reward for this we want to introduce an employee profit share scheme. This is based on what will be known as a HIP factor, which is determined on the basis of the factors of company success for the

whole Group – turnover, sales input, staff costs, capital accumulation and other costs.

One year after its 225-year anniversary, the Kurtz Group is already a long way beyond the nursery stage. But our very special HIP "nourishment" will help to ensure healthy long-term growth, anchored in the company's guiding principles.

From the cluster to the cast

Cluster filling with the KURTZ low-pressure control system



Fine-walled and technically challenging cluster

By Lothar Hartmann

The word cluster brings all kinds of images to mind, especially since the German word for this type of shape, "Traube", is the same as the word for a bunch of grapes. And just as grapes produce fine wines, so fineness and quality are also called to the minds of foundrymen when they think of clusters, as they produce fine-walled cast parts technically challenging.

These aluminium parts cast in investment casting with a wall thickness of 1 mm and less are used, for example, in the military engineering, aircraft construction, automobile industry and also in machine construction.

In short, anywhere where every gram counts, in order to keep the mass of moving parts to a minimum.

In the case of the project with the Zollern GmbH & Co. KG, KURTZ was asked to fill geometrically complicated ceramic clusters extremely fast and yet smoothly. Such a type of mould filling is necessary in order to be able to cast very thin-walled parts with many cross-section changes.

In addition, the required mechanical properties have to be achieved.

Especially the KURTZ low-pressure control system made this challenging project a great success. Being the heart of the plant, it achieves a mould filling speed of more than 65 mbar / sec which is necessary for this application. This means around 260 mm of aluminium per second. Besides the fast mould filling, the plant also benefitted from the proven KURTZ-specific elements "Teaching pre-pressure" and "Determine start point mould filling" by means of remote operation.

The plant is equipped with two resistance-heated 300 kg furnaces, used for melting and keeping hot. The casting plate can be operated manually and positioned above the furnace once ready for casting.

The close co-operation with the Zollern GmbH & Co. KG in Sigmaringen also contributed to the extremely positive result of this project.



KURTZ low-pressure casting machine for investment castings

Investment in the future

New high-performance processing centres for precision work

In order to continue increasing both productivity and flexibility and adjust to the ever higher demands of the market, KURTZ has now invested in two new high-performance processing centres by Mikron.



*Milling of difficult helical threads
- no problem with the programmable NC system*



By Stefan Dreßler

The proven quality of the company is thus further ensured for the manufacture of small series and components by using the very latest technology.

With the new Mikron VCE 1200 PRO vertical processing centre, the complex processing of components can be undertaken with a single clamping action.

The working range of this machine involves travel distances of 1200 mm in the X-axis, 600 mm in the Y-axis and a vertical distance of 675 mm in the Z-axis. The high-performance spindle, which reaches speeds of up to 10,000 rpm, can handle

work pieces weighing up to maximum 1,700 kg. In the shortest time, 24 individual, different cutting tools can be installed by the automatic tool changer. A programmable NC system makes jobs easier, in particular the milling of difficult helical threads.

Simultaneous processing in 5 axes with vertical and horizontal tool axes is possible with the new UCP 1150 universal high-performance processing centre.

The versatility of this processing machine is enhanced by a robust swivel head. A distinguishing feature of this swivel head

is its repetition accuracy, its great stability and the vector-controlled working spindle. And not least, a 46-way tool changer and direct drive NC round table with diameter of 1,000 mm again guarantee the ultimate in productivity and precision.

Both processing centres have a Renishaw gauge which supports the checking and recording of the work pieces by means of reference points on the components.

The programming of both control systems of type Heidenhain i-TNC 530 is carried out by trained staff at modern programming stations or directly at the machine.

Low-pressure die casting 1

KURTZ aluminium foundry invests in a new low-pressure plant



AL 13-13 FSC low-pressure die casting machine with furnace exchange for highest machine availability. Suitable for castings requiring highest melt quality.

Low-pressure die casting 2

Castings with free spherical geometry

The distribution system developed by KURTZ has already proven itself especially in chassis, engine and gearbox casting.

By Ulrich Munz

The latest innovation from the KURTZ aluminium foundry is a ceramic lined divider box between riser tube and casting die. This means that all spherical geometries can now be obtained by this casting technology. The low-pressure die casting process is often only associated with parts with rotation-symmetrical geometries – determined by the basic low-pressure process principle of a centrally-

located riser tube for mould filling and feeding. Wheel rim castings are the best example of this.

Problem: Material accumulation within the part, which cannot be fed from outside.

Problem solution: With the distribution system, all critical areas can now be fed directly under low pressure.

By Ulrich Munz

Aluminium foundry and foundry machinery manufacturing under a single roof – this KURTZ system is unique throughout the world. Customers not only get a foundry machine based on the very latest low-pressure technology, but also, if required, casting dies designed and manufactured by KURTZ. Patterns for tool-related mouldings can be made in the aluminium foundry, and qualitatively and quantitatively verified in a pilot run.

This means that the KURTZ aluminium foundry must keep up to date with its equipment in order to be able to provide this service under optimum conditions, not only to the KURTZ foundry machine division, but also to our customers who require castings, with constantly increasing quality demands and intensified downward pressure on prices.

It was only recently that the KURTZ aluminium foundry obtained the tenth low-pressure plant, equipped with the latest technology and characterised by an exchangeable furnace system – while a crucible furnace is operated in the plant, the second is used externally for melting and the complete initial metal processing. Without decanting and therefore without any turbulence, the prepared furnace can now be exchanged for the empty one, just as a stage in the casting process itself. A causal solution to matters of melt quality and productivity using low-pressure technology.

The target products for this new plant with several cooling circuits are therefore series parts of the highest quality, as demanded by automobile industry suppliers, or for parts for the vacuum industry.

This principle, developed at KURTZ, opens up a whole new range of applications and possibilities for obtaining practically all casting geometries, even in the low-pressure process.

The process has been proven, for example in chassis, engine and gearbox casting.

MBW on course for expansion

A successful move into the new Wertheim premises



Stylish and brand new: MBW has already been working in Wertheim-Reinhardshof for several weeks.

By Alexander Schmidt

In a record time of just five months after construction work began in mid-March, and around 100 days after the roofing ceremony, MBW Metallbearbeitung Wertheim GmbH was ready to move into their new production premises in the Wertheim district of Reinhardshof.

*April, 7th: Technology Day
April, 8th: Open House*

Ten years after its foundation – and following a period of constant healthy growth – MBW has developed into the region's largest supplier of steel, stainless steel and aluminium components.

The new building, which increases the production area from 1,800 m² to the

present area of 4,500 m², and an administration building with 900 m² of office space on the Wertheim site, is a further logical stage down the track with the points set to the future.

The investment has not only been in buildings, but also in the very latest plant, machinery, office and warehouse equipment. For example, a high-tech CNC punching and nibbling processing centre with automatic sheet feed was purchased, which has the particular advantage of efficient production of higher quantities. The connection of a further CNC laser cutting plant to the automated store tower is planned for 2006.

But efficient hardware always needs software of similarly high quality. This software is qualified, highly motivated MBW employees, who regularly undertake internal and external continuous development courses in order to keep their specialist knowledge up-to-date.

The management of MBW is proud of what has been achieved so far, and is planning a technology day for April 2006, offering customers the opportunity of viewing the new production facilities. There will also be specialist talks at this event, on the subject of sheet metal production and welding. A day later there will be an open day for the public.

The considerably increased production area is a substantial advantage of the new MBW premises in Wertheim.



Humid heat and crowds of people

Heidi Staub on her job at KURTZ Zhuhai



Snapshot by Heidi Staub



我看中国 - 今天和未来

[China today and tomorrow from the point of view of a German.]

When I heard in Germany about the invitation to apply for the job, it was clear to me – “I’m the one they’re looking for.” After a rather out of the ordinary interview it was decided – I would be going to China for six months. I have now been here for more than a year and I will even stay for another year.

The first difference from life in Germany is evident at the airport: you open the outer door of the fully air conditioned terminal and are immediately struck by the humid heat. It’s not long before I am introduced to another Chinese peculiarity. Crowds of people here jostle, wherever you go.

On the way to the company premises it strikes me that there are empty buildings everywhere. Building has begun and stopped, because the money has run out.

The road has three lanes and is practically empty. Sanzao had been preparing itself for a major industrial boom. Our company has an attractive site and a modern building – my working life in China has begun.

Only a few educated Chinese or Hong Kong Chinese speak English. Even body language in China appears to be different from ours: if you make a stop sign, as used by any football referee, you will be faced with stares of incomprehension. On the other hand the Chinese are skilled in signing all numbers from zero to nine on one hand. Any attempt to speak Chinese will generally be really appreciated and I have never met anyone who understood an incorrect pronunciation wrongly. For example, one time I wanted to ask someone, “Do you have a pencil?” By giving it

the wrong emphasis I accidentally said, “Are you mad?” He asked me with a smile, “What did you mean to say?”

It is not only the language which is different in China. The Chinese eat all parts of an animal. I gave up on my more or less vegetarian lifestyle. There are chickens’ feet, stomachs, intestines, pigs’ ears, lobsters, mussels, crabs, fish, larger insects, frogs, snakes, dog, cat and even mouse. The Chinese say you can eat anything which shows its back to heaven. This seems to be true. In the markets you choose the animals while still alive and take them home freshly slaughtered. Even in large supermarkets, live chickens are on offer. After a short time there, most Germans miss “real Schwarzbrot”, butter, Nutella, cheese, fruit juice and sparkling mineral water.



from China.



The impressions of a different world are fascinating her anew every day.



Originally planned for 6 months, Heidi has meanwhile been in China for one year.

There is beer in China, and one of the first words you learn is “Gangbei” which means something like “Down the hatch!” The Chinese assume that all Germans like beer and drink plenty of it.

On the subject of fashion, the first thing to be said is that every woman must have an umbrella. An umbrella is among the contents of every Chinese woman’s handbag. It protects to a certain extent against the rain, but above all it protects from the sun. It may be fashionable in Europe at the moment to look tanned and “healthy”, but in China they want to stay as light as possible. There are also all kinds of “whitening lotions” and “whitening facials”. You would search in vain for tanning studios or fake tan lotions.



The southern Chinese winter is very humid. The houses have no heating and when the outside temperature is ten degrees, it is also ten degrees inside. I bought a fan heater, and was given a sympathetic

smile, as I come from that cold country of Germany. It is often so foggy here that you can’t see the next door offices. Water condenses on all smooth surfaces – even the kitchen cupboards and table tops.

Clothes can stay damp for weeks. Air conditioning systems run around the clock to get rid of at least some of the moisture from buildings. Though on two days of the week there is no electricity, as it is one of the commodities of which there is a shortage. Workers make the days when there is no power their weekends, and the office is moved into their apartments, as communication with Germany or other companies has to be maintained.

Foreign visitors here are mainly accommodated in very attractive, but rather run-down residential complexes. No-one knows their neighbours, as people who live there only seem to leave their four walls to go to work. After a year I moved to the centre of our small suburb. Since then the residents have become used to the idea of a white woman with fuzzy red hair and blue eyes living here, who rides around the neighbourhood on a bicycle and goes jogging at night with a head lamp strapped to her forehead.

At the beginning, many Chinese people wanted to have their photos taken with me. Fortunately this has died down and I have succeeded in fitting in with everyday life. Only when playing table tennis it is still the case that passers-by press their noses up against the window to see how the German girl plays. It is a genuine fact: the Chinese are world masters at table tennis.

China is taking off. During the year I have been here, much has already changed. There are now a few cafés in Sanzao with menus in English. Streets are being repaired or reconstructed, and pavements laid. Where there were corrugated metal peasant houses a year ago, the bulldozers are now preparing the way for a new industrial area. In the supermarket you see „Kinderschokolade“ and capucino powder. Another German woman works for the company opposite. There are also two Africans and 15 Indians living here now. Prices are rising. The announcements on the ferry are now made in Chinese and English, and the recorded messages on mobile phones have recently become bilingual. I look forward to seeing what news I will have to report in another year’s time.



*The Olympic stadium in Berlin:
An outstanding marathon result for the
Kurtz Group employee Andreas Herbert.*

At exact nine o'clock the starting gun was fired by Berlin's Mayor, Klaus Wowereit. An almost never-ending colourful tide of runners was set in motion – and I was one of them.

In order to achieve the personal goal I had set myself, I had to maintain an average speed of 5:30 minutes per kilometre. This meant giving it my all from the start. After ten kilometres I looked at my watch and noted that I was well within target.

The tension soon subsided, and I felt on top of the world. The crowds of spectators, my family among them, encouraged me.

After thousands of footsteps, the end was finally in sight: along the "Straße des 17. Juni" the Brandenburg Gate gradually came nearer. I had no sooner run through this historic German landmark than my goal was reached.

Another glance at my watch showed that I had achieved my personal goal – a time of 3:59:11. A marathon in less than four hours. In brief, an incredible feeling.

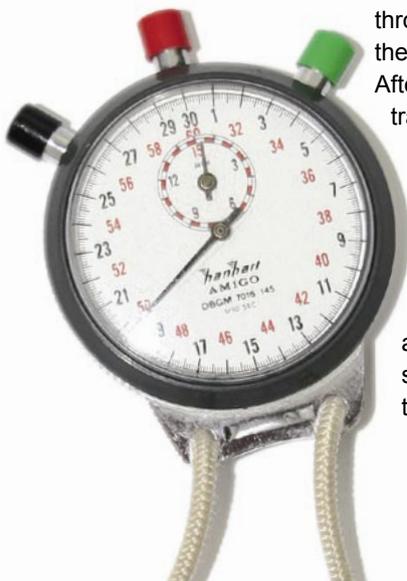
I returned home elated, and later I found out by chance that another Kurtz Group employee, Herbert Lannig, had also taken part.

Personal best time: 3:59:11

Andreas Herbert on his success
in the Berlin Marathon

This summer, after six months' preparation, the event Berlin Marathon began for me. On Saturday, early in the morning was the breakfast run from the castle Charlottenburg to the Olympic Stadium, six kilometres away. When running in through the imposing marble gate, I felt the first goosebumps rise on my skin. After the lap of honour on the new blue track I was fully convinced that this weekend in Berlin was going to be something really special.

After a restless night, I set off for the Reichstag the next morning. At the "Platz der Republik" 40,000 men and women were waiting, with the same objective: to run 42.195 kilometres through the German capital.



Starting out on the career ladder

Kurtz Group takes on 27 trainees

This year, 27 young people are starting their career at the Kurtz Group: six of these at ERSA GmbH, ten at KURTZ GmbH, nine at Kurtz Holding GmbH & Co. and two at MBW GmbH. Thus 84 trainees in total work at these company locations.

By Sabine Hörner

In his welcome address, the manager of the central department Human Resources, Günther Bartschat, Dipl.-Kfm., stated that training has always been a priority in the history of the Kurtz Group and that the percentage of trainees has been over ten percent for years. According to his statement, Kurtz sees itself as a predominantly technology-oriented company and therefore it is particularly important to be able to rely on well-educated and motivated specialists.

To help the new employees to find their way around quickly, the company was introduced in a short presentation.

Following the welcome address, group training manager Jürgen Schmidt took the new trainees round the individual company premises in Hasloch, Wertheim and Kreuzwertheim. Many of the new trainees had already taken the opportunity of the company's Open Day, part of last year's 225-year anniversary celebrations, to look round some aspects of the Kurtz Group works.

The Kurtz Group offers training in totally 17 areas – from industrial mechanic to business administrator and engineer. This helps Kurtz to maintain its leading position among medium-sized businesses.

Junior staff 2005: 27 new trainees were taken on at the Kreuzwertheim, Wertheim and Hasloch company locations.



Kurtz informed about training options for 2006

The training within the company will continue to play an important role in the Kurtz Group in the future. After all, employees trained in the own company as well as continuing education are a guarantee for the success of the individual firms in the high technology sector.

Therefore Kurtz regularly executes regional recruitment of future employees at its premises in Wertheim.

According to general manager Rainer Kurtz, Dipl.-Ing., it is a duty to participate in the careers information day at the school centre there.

Numerous pupils came with their parents to receive also information about internships at Kurtz. An internship can give a rough overview of students' intended professions and either confirm school-leavers' decisions or revise them. This personal experience helps school-leavers to find the right job for them.

In any case, this year's careers event in Wertheim was a great success again – both for the company Kurtz and for the many interested young people who participated.



Highschool graduates could enquire about training options with Kurtz in a relaxed atmosphere.

Protection of labour system

In July 2005 the Kurtz Group's management system for the protection of labour according to OHSAS 18001 standards was successfully certified by EQ-Zert.

Due to this system dangerous working steps are systematically documented and improved.



High-end solution for the wave soldering production process:
ERSA POWERFLOW guarantees added value



ERSA POWERFLOW

State-of-the-art machine control via a completely new software and user-friendly process visualization with touchscreen operation

a full nitrogen tunnel wave soldering system specifically designed for lead-free applications

By Angelika Uehlein

On time for the official start of lead-free, ERSA presents the POWERFLOW - the ultimate solution for lead-free wave soldering processes. This high-end system incorporates a completely new machine concept which includes numerous future-oriented and intelligent solutions adding value to our customers' operations.

The POWERFLOW is based on a modular, subsequently expandable housing concept. Its entire process tunnel is ready for lead-free operation and VOC-free, water-based fluxes. The new spray fluxer with 2-head-capability enables an exact programming of the spray pattern both online and offline. A true novelty is that it is now possible to regulate, display and control fluid quantity and the

amount of flux to be applied. The ERSA POWERFLOW also allows the integration of a second spray fluxer.

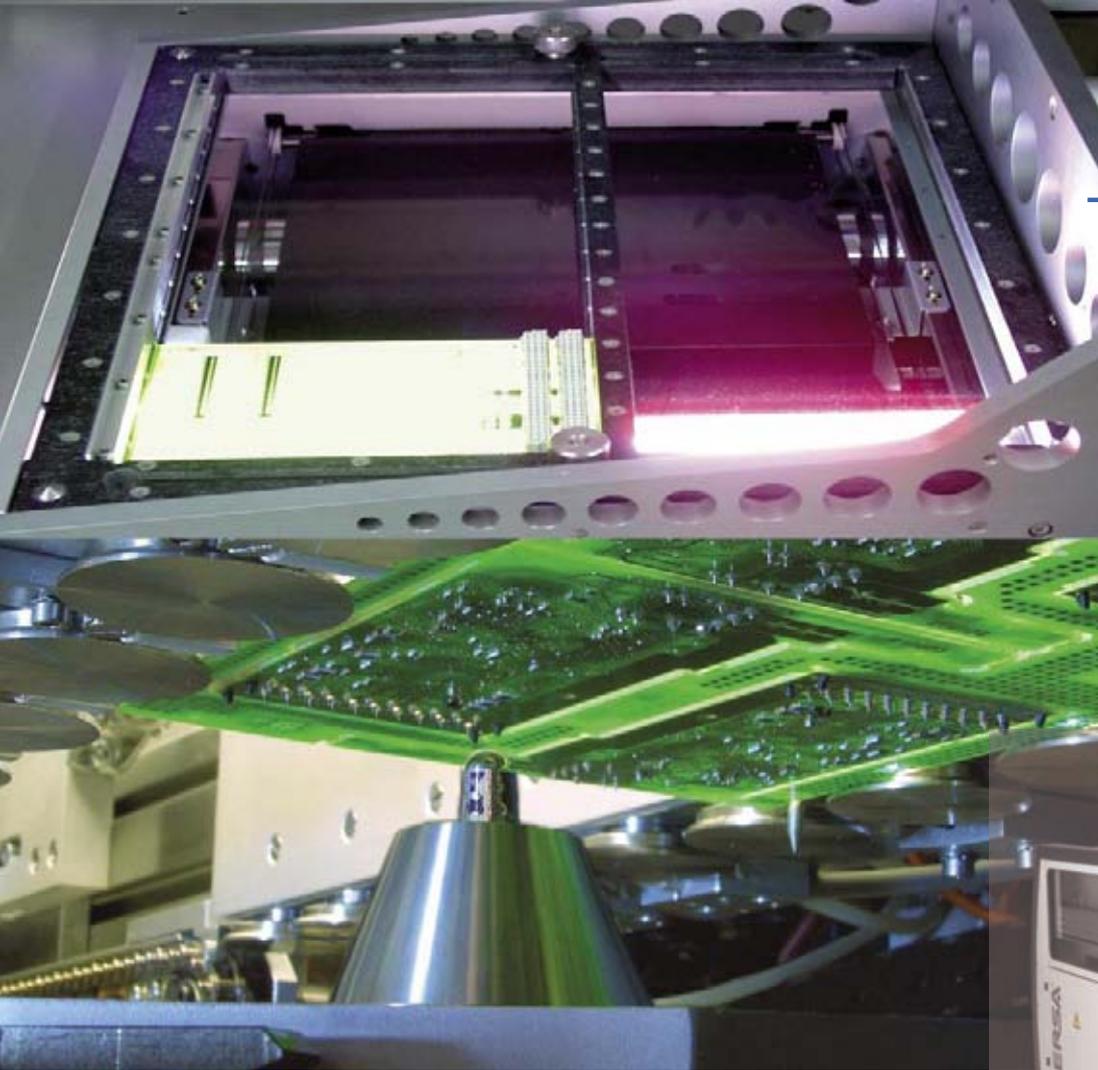
The modern tunnel concept is a core feature in the system technology. Minimum residual oxygen, intelligent temperature compensation, thermal stability as well as an efficient, multi-levelled process gas cleaning system are only some of its outstanding features.

As the ideal configuration of the preheating section is very important for the lead-free soldering process, the ERSA POWERFLOW offers a modular, flexible and individually expandable preheating concept with both, convection and emitter heating systems. ...



More online:

www.kurtz-gesagt.de/28/article1



— Patent pending: AOI and selective soldering module combined in one machine.



Revolutionary ECOSELECT AOI+R

AOI and Selective Soldering Combined in One Machine

Today's industry trends are going in the direction of 6 Sigma philosophy, First Pass Yield, Zero Defect, traceability, increasing throughput and decreasing costs.

By Mark Cannon

AOI was a natural solution and is established: in-line, no operator dependence – objective results, traceable, and less floor space vs. manual inspection. AOI, however, has not been commonly used for PTH inspection in mass soldering lines because the operator was required anyway to do the manual touch up!

Thus, operator dependent results for both the PCB inspection and the manual repair were the best you could get - subjectivity, no repeatability and no traceability! ERSA decided to put an end to this!

The new ERSA ECOSELECT AOI+R combines two state-of-the-art technologies, AOI and selective soldering, in one revolutionary machine. This truly innovative and patent pending technology will completely change the way companies approach inspection and touch up.

For the first time in the world, the ERSA ECOSELECT AOI+R can perform a fully automated PCB inspection and repair for PTH assemblies! Zero Defect, no operator dependence, 100 % quality control & documentation, rapid cycle times and

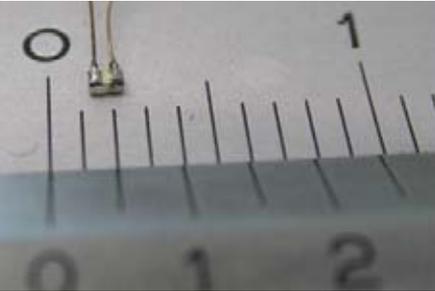
lower operational costs - these are the added value advantages offered by this amazing technology! PCBs which follow a mass soldering process are inserted into the ERSA AOI+R machine and the PCB is scanned for defects. When a defect is found, an automatic command is sent to the repair module. The exact position and defect type determines the type of the repair. When the repair process is complete, either the PCB can be selectively re-scanned for defect correction confirmation, or be sent for desorption. ...



More online:
www.kurtz-gesagt.de/28/article2

Achim Grob – the expert in fine

model railway electronics for the Spur Z system



Achim Grob solders miniaturized components for Spur Z model railways using digital soldering technology of ERSA.

By Guido Seifert

Among the orders received by ERSA during the last SMT (Surface Mount Technology) trade fair in Nuremberg was one for five digital soldering irons and a solder feed system, which didn't cause too much of a stir. But that soon changed. The order was placed by no other than Achim Grob, the boss of the high tech model railway company in Hambach, who makes parts which we in Wertheim haven't even heard of before.

In fact, on that occasion he merely wanted to order a simple soldering iron for his workshop. But since his impulse buy at

the Nuremberg trade fair his business has developed so amazingly that he got in contact with ERSA to tell them of his great passion.

Achim Grob makes electronic components for the Spur Z model railway in 1:220 scale, and has made a name as a niche supplier in this specialist sector. It used to be scarcely viable for him to make his products, but his business is now really booming.

Since he started using digital soldering technology from ERSA, Achim Grob has,

for example, been able to produce pin-socket lamps which cannot be made in a machine process. The 5 x 8 mm plates (eight electronic components on four sides) are scarcely bigger than the original bulbs fitted in the locomotive models by the manufacturers. These pin sockets designed by miniature motor mechanic Grob can be used in the tiniest models without alterations.

The idea behind it is that the electronics ensure a light which is even and bright at all times. He is now even going to patent his invention. ...

*Even and bright light at all times:
Grob's components for model railways sell like hot cakes.*



More online:
www.kurtz-gesagt.de/28/article3



on at the core existence

ERSA i-CON the ultimate
hand soldering solutions for lead-free

ERSA i-Tool - actual size



ERSA's new patent pending heating technology: compact design and extremely powerful with easy-to-change, low-cost soldering tips

By Mark Cannon

Guaranteeing quality in a lead-free environment will put the greatest demands on hand soldering applications. Today's hand soldering operators expect a great deal from a state-of-the-art hand solder tool: a small and light weight, ergonomically designed hand tool that does not get too hot during use, maximum power and efficiency for rapid heat up and recovery during soldering, fast and easy tip change, as well as easy to use station operation and programming.

Today's QA and Purchasing managers, however, have much different concerns. In order to guarantee quality, solder stations must be designed for superior performance. The higher working temperatures and smaller process windows for lead-free hand soldering demand

precise temperature control of the solder tip and rapid heat recovery of the heating element in order to prevent cold solder joints. Low cost, long-life solder tips are a must from a running cost efficiency standpoint and are the major concern for the purchasing department.

To meet this challenge, ERSA is proud to introduce its newest technology (patent pending) for a state-of-the-art solder station that has been specifically designed to meet the challenges the industry will face with lead-free implementation. The ERSA i-CON and i-Tool is an exciting innovation at the core of our existence, and will be available to the market the second quarter of 2006, just in time for the 1 July lead-free start date. ERSA has succeeded in designing

one of the smallest, lightest and most powerful soldering irons in the world - the ERSA i-Tool. The true value added for our customers lies not only in the fact that it will increase both the hand soldering quality and productivity, but also that it can realize a tremendous reduction in operational costs associated with manual soldering. ERSA's new patent pending technology allows for a similar performance as compared to the soldering irons with expensive heating cartridge tips, but offers a standard low cost, long-life exchangeable tip!

The ERSA i-CON advanced digital power supply offers ERSA's new "One Touch" easy to use operation with the new i-OP Control, as well numerous value added functions.



Available from the second quarter:
The ERSA i-CON soldering station
offering state-of-the-art technology
with "One Touch"-concept.

Visit KURTZ and ERSA at the most important shows

Messe/Show	City	Date	Division
foundrex India	Pune, India	21. - 22.01.2006	KURTZ Foundry Machines
Componex/electronicIndia	New Dehli, India	23. - 25.01.2006	ERSA Soldering & Inspection Systems
APEX, California USA	Anaheim, USA	08. - 10.02.2006	ERSA Soldering & Inspection Systems
Plastindia 06	New Dehli, India	09. - 14.02.2006	KURTZ Particle Foam Machines
Plast 06	Milan, Italy	14. - 18.02.2006	KURTZ Particle Foam Machines
Nepcon Korea	Seoul, Korea	15. - 17.02.2006	ERSA Soldering & Inspection Systems
Plastex	Kiev, Ukraine	21. - 24.02.2006	KURTZ Particle Foam Machines
Nepcon Shanghai	Shanghai, China	04. - 07.04.2006	ERSA Soldering & Inspection Systems
MBW technology day	Wertheim, Germany	07. - 08.04.2006	KURTZ Components & Systems
Hannovermesse Industrie	Hannover, Germany	24. - 28.04.2006	ERSA Soldering & Inspection Systems
CeBit Australia	Sydney, Australia	09. - 11.05.2006	ERSA Soldering & Inspection Systems
Nepcon Birmingham	Birmingham, UK	09. - 11.05.2006	ERSA Soldering & Inspection Systems
Foundeq 06	Milan, Italy	17. - 20.05.2006	KURTZ Foundry Machines
Intel Mailand	Milan, Italy	17. - 21.05.2006	ERSA Soldering & Inspection Systems
SMT/Hybrid/ Packaging	Nuremberg, Germany	30. - 01.06.2006	ERSA Soldering & Inspection Systems
Foundry Furnaces & Castings	Harrogate, UK	05. - 07.06.2006	KURTZ Foundry Machines

ERSA – World of Innovation

Successful participation in Productronica

At the world's largest specialist trade fair for electronics manufacturers, the Productronica in Munich in mid-November, ERSA presented their latest product range in the areas of soldering and inspection systems. 44,000 people visited the trade fair on the banks of the Isar during three days – and many of them called by the 240m² ERSA booth.



About 240 m² of high tech: The ERSA booth stood out by its clear design emphasising the novelties of the product range.

By Tilo Keller

"This year's Productronica fully lived up to our expectations. True to our motto for the trade fair, 'The World of ERSA Innovation', we were there with a whole range of new products, in particular many worldwide innovations. These technologies and products were greeted enthusiastically by trade fair visitors and confirm that we are heading in the right direction with innovative solutions for electronics manufacturing," says Bernd Schenker, the member of the ERSA management team responsible for sales and production.

"Although the total number of visitors was lower than last year," Schenker continued, "ERSA was very pleased with the outcome of the Productronica 05 both

from a commercial point of view and with regard to the quality of the business contacts made."

A logo was designed especially for the Productronica, visually linking the name ERSA with Innovation. The "i" stands for innovative, intelligent, intuitive, interactive, ingenious – or, simply, for ideal, and has been carried through to be used on the latest generation of products.



The ERSA i-CON soldering station with the completely new i-Tool soldering iron has a revolutionary heating technology for which a patent has been applied.

On the one hand this enables very powerful heat output from the extremely small, light and manoeuvrable soldering iron.

The second important aspect is that the soldering tip and heating element are separate. This results in huge cost savings for the user, as with comparable products from competitors, every time the tip is changed, the expensive heating element also has to be replaced.

With the ERSA ECOSELECT AOI+R, for the first time an AOI inspection unit and selective soldering system are combined in a single machine. This means, for example, that soldering errors are automatically detected and immediately rectified. Brand new technology which has attracted a lot of interest.

The completely newly-developed ERSA POWERFLOW N2 promises similar levels of success. The "flagship" of the

current ERSA high tech wave soldering machines, with fully enclosed nitrogen tunnel, has been designed especially to satisfy market demands for lead-free production.

With this machine the user benefits from the process know-how and wide-ranging experience of the ERSA engineers. Back in 1999, many years before the EU "Lead-free" Directive (1 July 2006) came into force, they were undertaking the first lead-free wave soldering projects in cooperation with customers.

With its "lead-free concepts" and the recently introduced and presented innovations, ERSA is firmly on the road to success, as evidenced by the above-average success at the trade fair, together with a growth in the company's turnover of around 20% compared to the previous year, with turnover doubling since the last Productronica in 2003.



Overwhelming interest in ERSA: This year's Productronica was very successful indeed.

Successful international sales meetings in Munich

It is a must in Munich: Bavarian beer specialties were tasted within the international sales meeting.



By Angelika Uehlein

In the run-up to the Productronica, the ERSA soldering machine and soldering tool divisions organized two very successful international sales meetings in the middle of November.

More than 90 sales partners from almost every country of the world informed themselves about the product novelties and company strategies of the market leader.

Three days of intense exchange of information, completed by the most important trade fair in the electronic sector worldwide, imparted actual knowledge of market and products to the participants enabling them to further successfully maintain their position against international competitors.

KURTZ is actively involved in future industrial development

When you first hear the diminutive expression “mini-plant”, in conjunction with a production factory, you are unlikely to appreciate what a future orientated concept lies behind it.

**By Clive Ship – SCA Tuscarora and
Björn Dewes – KURTZ GmbH**

Through intensive analysis involving the latest developments and location of markets, including the wish to be “one step ahead”, SCA Packaging Tuscarora (UK) has turned this concept from an idea into reality.

The basic question they asked themselves was:

How is it possible to supply their major customers economically?

And still be able to react flexibly to the customers strategically changing requirements?

The first answer to this question is a plant that is specifically designed to suit a major customer. In contrast to the large production halls, in which a great number of machines are located, producing various products for various customers, the typical mini-plant is connected directly to the customer’s factory. As the name mini-plant suggests it consists of a few machines dedicated to the customers specific local products. The services such as steam, water and air are optimally designed for exactly this plant size thus ensuring extremely economic production. Transport costs, due to the close proximity to the end user, are of course eliminated.

Now we come to the second part of the question initially asked: What happens when the customer, for strategic reasons, decides to move his production plant?



Mini-plant with modularly designed energy supply.

Is one able to move with him and to supply his product locally in say two weeks? Is there any chance of realising this ambitious aim? The way such plants were previously designed, definitely not!

But the difference is in the detail.

The media pipework is built in modules

and mounted on support stands. They are no longer fixed, in a complicated manner, to the building, walls, roof and floor. The energy plants (boilers, compressors etc.) are mounted on transportable platforms or in containers. This facilitates rapid dismantling, transport and reassembly of the production plant.

SCA Packaging Tuscarora (UK) has had significant successful experience with mini-plants, having completed two such on site facilities for Indesit Ltd. in Great Britain. When they looked at the redevelopment of their large moulding plant at Torpoint near Plymouth, SCA Packaging Tuscarora (UK) decided to use many of the concepts and benefits, learnt from mini-plants, and expand them for this much larger scale project.

Working with KURTZ an additional challenge appeared as it was not the classical concept of a new plant but the conversion of an existing plant that had grown gradually. During all the stages of modification, carried out in several steps, the plant continued to produce, allowing



Mini-plant: compact and innovative

SCA Packaging Tuscarora (UK) to supply their customers without interruption.

Preparation of a detailed time schedule, together with intensive co-ordination was

a necessary part of this process. SCA Packaging Tuscarora (UK) with KURTZ proudly look back at this highly interesting project which was achieved in a spirit of close co-operation.



Out now – Our smart spare parts catalogue

Only original parts can guarantee KURTZ quality

The new Spare Parts Catalogue is available on CD-ROM. Every processor should have one.

By Martin Bauer

A high level of customer satisfaction is one of the main factors for the success of our customers' companies in the particle foam plastics industry. But a high level of customer satisfaction can only be achieved if, in addition to an acceptable price for a particle foam part, consistent high-quality reliability can also be assured. And this in turn is achieved on the one hand through the use of a tried-and-tested, reliable KURTZ production plant and on the other hand through intelligent spare parts management for continued operation.

The availability of a certain critical part during a tight delivery deadline can have a decisive effect on continued good business with a customer. And the parts used must satisfy the most demanding quality requirements. In many applications and areas of use, in order to achieve a cost-effective useful life and high production reliability, appropriate materials and original components are essential.

It therefore goes without saying that ultimately, only original spare parts from the manufacturer guarantee the quality and reliable maintenance of continuously high production quality.

In order to ensure this for its customers and facilitate the selection of the correct spare parts, KURTZ has now published the second extended and improved version of the already familiar spare parts

catalogue. It contains all the essential original spare parts for a quick overview of customers' requirements.

This comprehensive catalogue is available on CD-ROM. This should not be absent from any workshop, and is an essential tool for maintenance managers in production facilities. Detailed drawings and illustrations make the locating of the correct spare part as easy as child's play. This avoids unwanted shipping costs for parts ordered incorrectly and reduces stoppage times to the minimum.

In addition to this, KURTZ also offers complete, custom-tailored spare and replacement parts packages for the optimum implementation of maintenance work on particle foam processing plants. These are made up individually depending on the machines used by the customer.

Tailor-made for demanding customers

Identical mould halves are
the secret of the **Rotax machine**

By Norbert Reuber

The complexity of particle foam mouldings is becoming higher and higher, especially in the automobile industry and for packaging components. Therefore it makes sense to fully optimise production chains which leads to the integration of different, sometimes even conflicting, functions and properties in one moulded part. Functions and properties achieved by a single particle foam mould are for example fixing devices, stiffness, weight saving and insulation.

Due to these requirements, usual machine concepts cannot offer the optimum production conditions. Therefore new

machine concepts are tailor-made in co-operation with our customers like, for example, the Rotax machine.

The core of the machine is a horizontally rotating fixed plate with two identical mould halves. The counterpart to these two mould halves is mounted on a conventional horizontally movable press frame.

The moulds for this machine can be used in the usual way in a steam chamber and also as monoblock tools. The machine offers the maximum ergonomic efficiency and flexibility with its horizontally rotating steam chamber.

While a moulding is being produced, the operator or a robot system can remove finished mouldings outside and place "inserts" into the mould for the next cycle.

Since the media supply is separated from the removing and insertion side, it offers maximum safety for the operator. Steam can only enter the mould half which is in the interior of the machine, that is in the moulding position.

Alternatively, the machine may also be operated as a conventional shape moulding machine with all the typical KURTZ features.

K12.515.5HP5/HR shape moulding machine



The machine innovatively meets the following requirements:

- compact dimensions
- high productivity
- flexibility
- the option to install a handling robot
- short cycle times
- extremely low energy consumption
- high level of safety for the operator
- high degree of flexibility regarding mould design

Networked data recording, the display of necessary maintenance works and user-friendly handling of all required process parameters complete the system. All in all "tailor-made" for demanding customers.



Table Mountain, South Africa

KURTZ Systems Africa celebrates its 10 year anniversary

Joining forces to succeed in difficult markets

For ten years now, Kurtz Systems Africa (Pty) Ltd.

*in the Zimbali Coastal Estate has been serving its customers
on the "black continent" in the field of particle foam machines.*

By Knud Stadler

The co-operation recently agreed with HighChem Industrials Africa Ltd., Kenya, which has an extensive sales network in East and Central Africa, offers new possibilities to break into new, difficult markets.

Africa's future is far more promising than often assumed. In the Management Index 2006 recently published by the Bertelsmann Foundation, Mauritius was placed top out of 119 developing and transition countries.

The report also attests good political management in other African countries

like Botswana, South Africa and Ghana. KURTZ Systems Africa is mainly involved in South Africa, Namibia, Ghana, Kenya, Tanzania and Uganda.

The Sudan and Egypt are also served from here, while the French-speaking countries of the continent are served by KURTZ France.

Besides complete EPS plants, for example for the production of fish boxes or other packagings, KURTZ Systems Africa also supplied block moulding machines, pre-expanders and special machines since its founding.

165 Mio € Turnover • 1100 Employees

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