

December 2007



VERSAPRINT screen printer

Successful world premiere at Productronica

Innovative shape moulding machine

Multi-process technology for all particle foam materials

Innovative low pressure casting machine

for aluminium and magnesium in aeronautics

Innovative training concept

Dual system with almost 100 trainees

www.kurtz.info

www.kurtz.de

www.ersa.de

Federal Minister for Employment conducted discussions with Kurtz

By Thomas Mühleck

At the end of October Franz Müntefering (SPD), at that time still Federal Minister for Employment and Vice-Chancellor, together with the Member of the Bundestag for Karlstadt, Heidi Wright and further local politicians visited the Kurtz Group. In addition to viewing the historic iron hammer and the iron foundry in Hasloch, an exchange of views was a central focus of the event.

Rising energy costs, aspects of nuclear power, the situation regarding inheritance tax, transition to flexible working conditions and the current pension age were heatedly discussed. The Managing Partners Rainer and Bernhard Kurtz, as well as the Chairman of the Works Council Jochen Kraft, took up very clear positions, so that a lively discussion ensued. Towards the end, the Federal Minister for Employment was presented with an extensive package of questions which he promised to pass on to Chancellor Angela Merkel (CDU).



Franz Müntefering at the factory tour through the Hasloch iron foundry in discussions with the Kurtz managing directors Markus Rosenthal, Rainer Kurtz and Bernhard Kurtz.



The Managing Board of Kurtz Holding GmbH & Co.:
Dipl.-Ing. Markus Rosenthal, Dr.Ing. Rolf Hallstein, Dipl.-Kfm. Bernhard Kurtz,
Dipl.-Ing. Rainer Kurtz, CEO and Dipl.-Ing. Walter Kurtz

Top Class!

Kurtz Group successful at all leading trade fairs

2007 was the year of trade fairs for the Kurtz Group: GIFA, K International Trade Fair for Plastics and Rubber and Productronica. These leading worldwide trade fairs, which are staged in a cycle of several years, are the shop windows for the state of the art. The Kurtz Group exhibited at these trade fairs with the „METALS“, „PLASTICS“ and „ELECTRONICS“ business areas. We are proud of the positive feedback from the many visitors. Without blushing, we can sum this up in one expression: Top Class!

Our endeavours to be the technology leaders in all business fields are now becoming more and more visible for our customers and are being rewarded by varied inquiries and increased business. In this context, we are dependent on

an exchange of ideas on the subject of „Optimisation of quality, costs and delivery service in the manufacturing process“. We are grateful for the qualified input which we receive from our customers and prospective customers for our further developments in such discussions.

In general, our home market, Germany, is on the upswing again. The number of unemployed is declining and, despite an increase in capability of foreign competitors, German engineering has an outstanding reputation all over the world. The reason is that originals are something unique, which the „Pro Original“ campaign of the VDMA (German association of machine and plant manufacturers) proves. Be it wind power, environmental engineering, machine tools, the automotive industry,

printing presses, medicinal engineering, solar engineering - products from the Kurtz group are involved everywhere. Lasting success is above all enjoyed by the companies who have made „best in class“ their objective. „Best in class“ can also mean to afford something which others cannot afford. Like motorways without a speed limit. In this way, Germany is the only country to show that it is possible with high-performance vehicles, high traffic density and high speed to achieve an optimum in road traffic safety and comparatively low contaminant loads. We wish to continue down this path and not get caught up in envious discussions.

We cordially wish the readers of Kurtz ...News some relaxing days at the end of the year and a successful start to 2008.

Good luck!

M. Rosenthal *R. Kurtz* *B. Kurtz* *W. Kurtz*

Kurtz takes over Hainke properties in Hasloch

Space for growth strategy



The administration building of the properties at Barthelsmühle in Hasloch.

In August, the Kurtz Group bought the premises of the Haslocher Ausziehtisch- und Möbelfabrik A. Hainke GmbH in Hasloch. With a total area of 117,000 m², the Hainke site and buildings, immediately adjacent to the Kurtz headquarters, open up interesting opportunities for expansion, thus offering the urgently-needed space for the growth strategy over the next few years. Part of the area will be used for the expansion of the core business of the group of companies at its Hasloch site.

15 former Hainke employees were also taken on board by KURTZ Fertigungstechnik GmbH & Co., which in April of this year took over the business operations of TEKON in Marktheidenfeld.



Matching the iron foundry's portfolio perfectly: Manual casting of grey iron and nodular iron up to a cast part weight of 5,5 tons.

mechanical large parts processing as well as foundry machine engineering. Furthermore, MBW GmbH with the sheet metal engineering in Wertheim and Baiersdorf, MGM GmbH with non-ferrous metal and aluminium sand casting in Mannheim and, as the youngest member, KURTZ Fertigungstechnik GmbH with small parts processing in Marktheidenfeld, belong to Kurtz METALS.

With this attractive range of services and the diverse products and technologies centred around the material metal, the Kurtz Group is in a position to offer its customers what is undoubtedly a unique range, all from one source. The range extends from the design to the manufacture of cast iron parts weighing between 1 and 5500 kg as blanks or finished parts. Cast aluminium parts manufactured in different processes with different properties and highly-modern sheet metal processing right up to complete assemblies and machines, in particular in the area of aluminium low-pressure casting plants, also characterise the ability of the companies in this business segment.

Kurtz METALS continues growing From design to production

By Thomas Mühleck

„Variety is our strength“ is one of the slogans in the Kurtz Group. This variety is demonstrated by a large number of companies, by different products and process technologies as well as different markets and customer segments. In order to ensure that this variety can be even better assigned to the Kurtz matrix organisation, the business areas

have been organised into the segments PLASTICS, ELECTRONICS, METALS and SERVICES.

Kurtz METALS is the largest segment and deals with the manufacture and processing of metal products. This includes the KURTZ GmbH iron foundry in Hasloch, the aluminium foundry in Wiebelbach,

Art and Culture at Kurtz Vol. 6 CHINA

By Tilo Keller

In the autumn, the Kurtz Group presented a further exhibition in its corporate gallery in the administrative building in Wiebelbach under the motto „Art and Culture at Kurtz“.

Following past exhibitions by international artists, this time works by the Chinese painter Cheng Shenghu from Shanghai were on exhibition. The Kurtz Group has six different locations in China. Cheng Shenghu, who was born in Shanghai in 1960, is an established figure in China's

art scene and has also made a name for himself beyond China's borders with numerous international exhibitions.

Over one hundred of his works have been published in catalogues and art magazines. In Europe too, he has already been represented in several exhibitions. The show in the Kurtz gallery was his first sole exhibition in Europe.

Cheng Shenghu's artistic work is marked by traditional Chinese form language and

painting techniques, which provide a wide-ranging insight into Chinese artistic perceptions.

Over 200 art aficionados attended the exhibition opening in Wiebelbach, and chatted to the artist about his inspiration, allowing them, at least for a while, to experience China at first hand.



Corporate Citizenship of the Kurtz Group

By Dr. Matthias Wagner

The Corporate Citizenship of a company can, in the widest term, be summed up as the „collected civic commitment“ for society. Action orientated to social and common welfare has had a long social tradition, precisely in Germany, since the early 19th century. Indispensable in this connection is a company's responsibility for its public perception. However, this attitude also has to be found in the own inner structures, e.g. by means of a corporate hierarchy of values, and has to be ideally rooted in the corporate philosophy. This is precisely the attitude regarding an integrated and long-term community, the Kurtz Group can proudly look back to in its 228-year history. At the same time, this constitutes the starting point for a social and cultural obligation in the local region.

Also the securing and creation of jobs as well as the provision of apprenticeships in order to give young people vocational prospects is part of this obligation. Not only do customers or suppliers appreciate the corporate culture of honest and open dealings amongst one another and expected of all employees,

but the Kurtz Group itself also supports the sponsorship of local sports clubs, social projects and cultural events as a focal point. In this way, particularly the own employees are supported in their voluntary activities, their solidarity with the local region is respected and also their quality of life is increased. In this context, priority is not only given to the creation of a regional identity or piece of home. By means of the cultural promotion as forward-looking benchmarks also the creativity and innovation of all employees is meant to be combined.

The Kurtz Group is taking its social responsibility very seriously. Society, however, is subject to permanent changes. Therefore, the alignment and quality of responsibility must also be permanently examined within the Kurtz Group. This is the only way in which we will succeed in entering into partner-like co-operations of an ecological, cultural and social nature also in the future.

This concept has proven its worth for more than two centuries.

Kurtz Electronics Kurtz Services Kurtz Plastics Kurtz Electronics Kurtz Services Kurtz

For Cheng Shenghu „The mountain represents the principle of tranquility and stability. Water means dynamics“. With this attitude he sticks to a culture far beyond the big upheavals of the presently radically changing Chinese society.

Face lift under full load

Hasloch grey-iron foundry fit for increased production

By Walter Kurtz

The great increase in production and the rise in the maximum cast weight at the KURTZ grey-iron foundry in Hasloch (we reported) have now demanded considerable adaptations in the internal sequences.

When more and larger pieces are cast, more process heat also has to be removed. This is why the amount of circulating sand had to be increased and the cooling output for the sand cooling multiplied. In addition,

the emptying capacities for the cast pieces shaped in the mould box had to be adapted and the sand conveying capacity considerably enlarged. New moulding boxes were procured and the industrial trucks had to be fitted to match the change in tonnage for internal transportation. Even the load-bearing capacity of the cranes and the crane runways had to be reinforced. These measures automatically resulted in an optimised flow of material in the overall operations.

All these changes were made practically without being noticed in ongoing operation. A logistic masterpiece!

Result:

The face lift under full load did Hasloch the world of good. The external and internal scrap rate has been reduced, the delivery periods shortened and delivery punctuality increased.



in Baiersdorf

MBW flooded in water and mud

By Ewald Garrecht

Severe flooding at the MBW plant in Baiersdorf in July: Within just a few minutes in the night from 21 to 22 July, a thunderstorm in the Forchheim/Erlangen region brought torrential rain, with 75 litres falling per square meter. Cellars were flooded, roads became impassable. A dreadful natural disaster for many residents and companies in the region.

Within a very short space of time, the MBW premises stood under 60 centimetres of water and mud. Almost all the machines, such as the sensitive laser punching machine, bending machines, welding equipment and tools, as well as the office equipment (computers, desks, cabinets), were destroyed.

Thanks to the stout-hearted manner in which the staff tackled the situation, dressed in rubber boots and wielding pressure hoses, we succeeded in at least clearing the worst of the chaos within a week. As the most important machine, a laser cutting plant, had suffered enormous damage, a new model was purchased at short notice. Due to the excellent customer relations enjoyed

with TRUMPF, it was possible to begin operations again with the new machine within just two weeks.

Our very special thanks go to the staff for their untiring endeavours as well as to our suppliers. In particular, the management would like to thank our customers for the understanding they displayed in the face of shortcomings during this difficult period.



The morning after: A scene of destruction in the offices and production facilities. The muddy waters left filth and chaos everywhere.

MBW with new flow production

Lump-wood burner for HDG Bavaria

By Romy Kern-Irlacher (HDG) and Markus Werner (MBW)

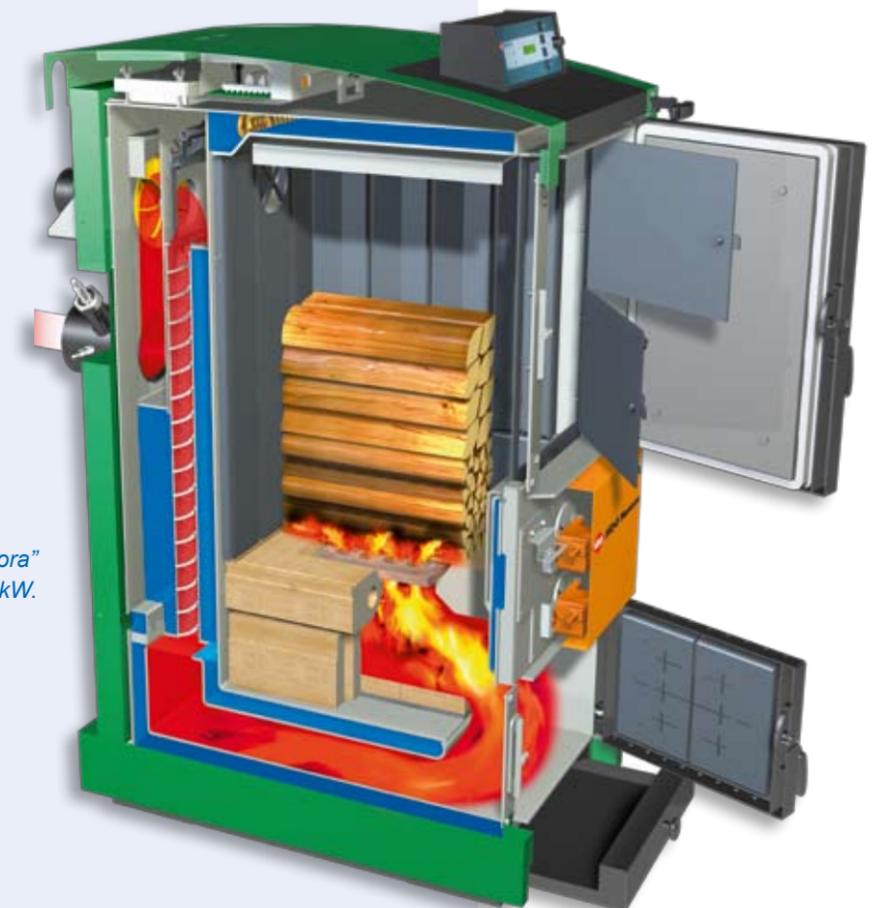
With a growth in environmental consciousness and the discussion on the climate change, heating with timber is permanently gaining in popularity in this country. HDG Bavaria GmbH in Massing produces lump-wood, wood-chip and pellet heating systems with outputs of 4.5 kW for private households right down to large 400 kW systems.

To extend their position on their growth market even further, HDG decided to reinforce their own production, which is running at full capacity, with a reliable German partner. MBW Metallbearbeitung Wertheim GmbH was awarded the job and is now responsible for the production of the „HDG Navora“ lump-wood burners (20, 25 and 30 kW). Only recently, HDG Bavaria GmbH was awarded the Bundes-Innovationspreis (federal innovation prize) for this product.

The modern MBW fleet of machines with fully automatic stamping/nibbling machines, laser cutting systems and bending robots guarantees maximum productivity and precision for the manufacture of the individual parts. For welding work and final assembly, a pulsed flow production has specifically been set up. In this way, production and logistics are aligned to the current clients' requirements and can be adapted to market requirements at any time.



Lump-wood burner "HDG Navora"



Innovative oven: The "HDG Navora" with a capacity of 20, 25 and 30 kW.

Low-pressure casting machine for aluminium and magnesium

Innovative KURTZ technology for the Russian aeronautics industry

By Maxim Potapov

Magnesium is practically inexhaustible on our planet. As the eighth most frequent element, it forms about 1.4 % of the structure of the earth's crust. In 1808, Sir Humphrey Davy obtained magnesium for the first time in a coarse metallic form.

Magnesium alloys have a number of positive properties: high specific strength, extremely low material fatigue and excellent processing ability. Over and above this, they are extremely insensitive to impact and vibration strains. Some magnesium alloys also have a high heat resistance and can be used without any problems in the temperature range from 250 to 300 °C. But the most attractive property is that magnesium is 4.5 times lighter than iron and even 1.5 times lighter than aluminium. This is why it is also preferably used in aircraft and automobile construction.

Casting magnesium is not simple. The cast part production demands compliance with specific rules on all levels of the technological process. The melting temperature of magnesium is 651 °C. Under normal conditions, it is difficult to be melted: At up to 550 - 632 °C, magnesium ignites of its own accord and burns with a dazzlingly bright flame. Protective and counter-measures make this process more difficult.

All over the world, various parts for the aircraft industry are cast of magnesium, as is also the case with the Russian firm of Rubin. Rubin is a system supplier for the civil aeronautics industry. For the first time, KURTZ has now designed a low-pressure casting machine for non-permanent moulds, which is suitable for both aluminium and also magnesium casting.

The task was to develop a furnace concept making both the melting and also the casting of aluminium and demanding magnesium alloys possible. Both types of furnace have been designed as exchange furnaces by means of mechanical multi-coupling. The change of furnace is done by fork-lift truck.

KURTZ also supplied the melting station and a specific gas-mixing plant for generation of protective gas.

In this project, KURTZ' flexibility was highly beneficial, as the KURTZ low-pressure control can be used without any efforts for aluminium and magnesium. In Russia, Rubin now has a complete, highly productive system for the manufacture of small series and serial cast parts in core packages, sand, plaster or ceramic moulds for aluminium and magnesium.



For the first time KURTZ developed a low pressure casting machine for non-permanent moulds, suitable for both aluminium and magnesium casting.

Visit us from 11. – 13. March 2008 at Euroguss in Nuremberg!

Hall 12/12-451

A legendary summer game at Schollbrunn

KURTZ vs. ERSA



In the end everybody was a winner at the trial of strength between the football teams of KURTZ and ERSA.

By Tilo Keller

The eagerly-awaited football match between KURTZ and ERSA took place in July under perfect conditions. Expertly organised, practically to World Cup standards, the highly-motivated Kurtz Group teams met in gorgeous weather. The soccer skills of the two companies were tested out at the idyllic sports ground of SC Schollbrunn in the Spessart.

After warming-up, during which the KURTZ players were intensively prepared for the game by their female coaches, the KURTZ team appeared on the pitch to questioning glances from their

opponents, to the loud accompaniment of the Faulbach Marching Band. Spurred on in true football stadium manner by the three Kurtz brothers, Rainer, Walter and Bernhard, the two teams gave their fans a game distinguished throughout by fair play and sporting zeal.

By half-time the KURTZ team were leading 3:0. The ERSA goalie was to thank for the fact that the result wasn't even more decisive. In the second half, the KURTZ team was also the stronger, not conceding a single goal to their opponents. The final result was 6:0.

However, it should be acknowledged that the KURTZ boys are an experienced team, most of whom also play regularly for the local football club. The ERSA team, on the other hand, had only had two training sessions before the match, and had never played together before.

So it was the ERSA team who won over the hearts of the spectators, although it was KURTZ who won the cup. In order to ensure that they are at least professionally turned-out for the re-match, the ERSA management have already splashed out on a new kit for the team.

Well-founded training is more important than ever

19 job profiles in the Kurtz Group

By Sabine Haas

Initial vocational training in Germany takes place predominantly within what is known as the dual training system. This means that knowledge essential to the job is imparted at two training locations in parallel. The practical vocational training is given mainly in companies, while the relevant theory and general educational subjects are taught in vocational colleges. Companies and vocational colleges therefore share the responsibility for the training.

The dual study course augments the classic dual training concept

and, with a combination of practical training with a company and a course of study in cooperation with a college, offers the possibility of shorter training periods, attractive starting salaries and good promotion opportunities.

The Kurtz Group training system, which extends throughout the business, and provides for exchanges between the relevant companies offering training, gives insights at a very early stage into the various different business sectors and technologies. A comprehensive

know-how transfer is also ensured, all of which means that the training offered within the Kurtz Group is extremely versatile.

With 19 different job profiles – from foundry mechanic to industrial clerk, or a training programme at the college of cooperative education – the Kurtz Group offers an above-average range of training. The high quality of the initial and continuing training ensures that the Kurtz Group is fully equipped to meet customer requirements and demands now and in future.

Almost 100 trainees

Kurtz breaks its own training record



By Sabine Haas

In addition to a high number of subsequently employed trainees, the training concept of the Kurtz Group is characterised by a constantly high training rate of ten per cent. At the start

of the new training year, Kurtz took on 30 new trainees, bringing the total to 98 – more than ever before.

In spring, 19 trainees successfully concluded their courses and went on to employment in the group companies at Hasloch, Kreuzwertheim, Wertheim and Baiersdorf. As part of the so-called release ceremony, in September five graduates of the cooperative training college and in October two further graduates were welcomed into the world of "real" work at Kurtz.

Referring to the Kurtz Group staff development concept Dipl.-Kfm. Günther Bartschat, Manager of the Central Personnel Department, encouraged the young skilled workers to be prepared to continue learning in future and to contribute constructively for example to the target agreement process.

Productronica 07

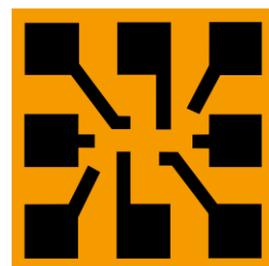
A fireworks display of novelties

ERSA stood out with world premiere and innovative technology

By Mark Cannon and Angelika Uehlein

With one of the largest showings in the company's history, ERSA put on one of its greatest shows on 360 m² at the exhibition in Munich. Thousands of customers from all over the world were drawn to the ERSA booth and greeted by the motivated ERSA staff of over 50 personnel. Two live stage shows were continuously highlighting the new Hybrid rework tool and the new VERSAPRINT screen printer. ERSA's gigantic step into the paste printing field goes hand in hand with the launch of a completely new generation of reflow machines. Finally, ERSA launched the third generation of VERSAFLOW in-line selective soldering machines.

Now responsible for 100 per cent of the process related steps in the SMT line, as well as the majority of steps which follow the line, ERSA is re-defining the role of a strategic supplier. A revolutionary print solution with integrated post print AOI; world class reflow, wave and selective machines; optical inspection; patented rework and repair systems including a completely new Hybrid heating technology and innovative soldering tools for touch up all from one supplier. Nowhere else in the entire world is it possible to find such a product platform combined with true process expertise from one supplier.



Show highlight I:
VERSAPRINT

The VERSAPRINT series :
Screen printing and 100 % post print AOI (Automated Optical Inspection) in parallel processing. Saves costs and reduces cycle times.

www.ersa-versaprint.com

„Your SMT process – Our responsibility! Visions can come true”

was one of the show's slogans - and this was seen at ERSA in Munich.

Successful market launch of ERSA screen printers

The VERSAPRINT series of screen printers for the electronics manufacturing industry is based on a completely new camera technology. With the help of LIST (Line Scanning Technology) and TRT (Triple Rail Transport), reduced process times can be achieved due to simple operation, improved automation, shorter cycle times, increased machine functionality and finally an optimal cost-performance ratio.

The use of a line scan camera in the printer provides images for type recognition and AOI (Automated Optical Inspection) faster than ever before:

35 mm/sec across a total length of 260 mm. The LIST Technology offers various new functions to visually support the user in the machine set-up, operation and process optimization due to substantially reduced time and errors for fiducial programming. The inspection capabilities include the detection of paste on pad, bridges, print offset, as well as the detection of stencil smearing and blockage. The GUI (Graphic User Interface) is designed according to the SEMI standard E95-1101 allowing operators to work rapidly using a commonly known software interface.

Added value by technology advantages:

- ▼ True parallel processing for high quality and high speed printing
- ▼ LIST camera for 100 per cent in-line inspection at line speed with full PCB scan
- ▼ Inspection of paste on pad, bridges, print offset, stencil smearing and blockage
- ▼ Closed loop process control for print and post print inspection
- ▼ Least floor space required and lowest invest required
- ▼ Easy to programme and easy to use
- ▼ Only one contact for printer and post print inspection

On more than 360 m² of both area at Productronica 2007, the world's largest trade fair for the electronics production in Munich, ERSA presented the specialized national and international visitors the complete range of soldering machines, rework and inspection systems, manual soldering equipment and screen printers.



Show highlight II: HOTFLOW 3

Since their introduction into the market nearly 10 years ago, the HOTFLOW series reflow ovens from ERSA have set the industry standard for high-end reflow machines.

The HOTFLOW 3 is a third generation machine based on the proven ERSA heating technology. The research and development of the HOTFLOW 3 series had its focus on improved heat transfer via a complete re-design of the process tunnel, reduced energy and N₂ consumption, improved cooling, as well as optimized process control.

From a productivity versus floor space requirement standpoint, the HOTFLOW 3 sets the industry standard. With both

dual and now triple track options, it is possible to increase throughput by as much as 300 per cent without increasing floor space.

Each track runs its own set speed and its own PCB width for maximum flexibility. It is now possible to run as many as three different products simultaneously. Only highest quality materials have been used in order to guarantee the highest machine availability. Finally, all major parts are exchangeable within only 15 minutes in order to keep machine downtime to an absolute minimum.

The next generation of ERSA multijets in the newly designed process tunnel of the HOTFLOW 3 series.

Added value by technology advantages:

- ▼ Dual and triple track can increase productivity by 300 per cent
- ▼ New heating technology optimizes heat transfer, zone separation and reduction of delta T between high and low mass components
- ▼ New „On the Fly“ condensation management saves downtime as much as 2 hours per week
- ▼ Improved internal and external active cooling with additional cool zone and temperature controlled cooling
- ▼ 100 per cent gas sealed process tunnel with lowest energy and N₂ consumption



The VERSAFLOW 3/45 for in-line selective soldering with increased throughput and decreased floor space requirement.

Show highlight III: VERSAFLOW 3

Accepted as the world leader in in-line selective soldering machines, ERSA is now proud to introduce the third generation machine, the VERSAFLOW 3. Market research indicated that improved machine accuracy, modular design allowing for machine extensions, increased throughput and decreased floor space requirements are being demanded by our customers. Increasing production efficiency remained a primary goal which was achieved during research

and development. The VERSAFLOW 3 encompasses a new modular platform which allows for adding additional solder pots, fluxers and/or pre-heat modules. A revolutionary dual track capability allows for the simultaneous processing of up to 14 PCBs. Finally, a new Hybrid heating technology extends the flexibility for the pre-heating of high mass assemblies. The VERSAFLOW 3 offers the highest flexibility and the highest throughput at a minimum of required floor space.

Much capacity with least space requirement – the hand-operated rework system HR 100 A with Hybrid technology.



Show highlight IV: Hybrid rework technology

ERSA, a renowned manufacturer of convection reflow soldering systems as well as infrared rework equipment has now combined both heating technologies in one system. The hand-operated HR 100 ERSA Hybrid rework system combines infrared as well as convection heating in one hand tool for the soldering and desoldering of densely packed SMT components. By means of IR radiation the Hybrid tool delivers smooth and homogenous heat to components sizing from 0201s to 20 x 20 mm SMDs. Exchangeable

hybrid adaptors focus 200 W of hybrid heating power onto the component while protecting neighbouring areas from heat damage. Using the optional IRHP 100 heating plate (800 W), the complete set provides powerful and safe IR bottom-side heating as well as a Z-axis tool stand for the Hybrid tool. Via the mini USB port the HR 100 can be connected to the IRSoft rework software. It provides multiple functions to operate the system, set and store process parameters and document all soldering or desoldering results.

ERSA Know-how Seminars

- ▼ 11 + 12 March 2008: “Lead-free wave soldering” workshop
- ▼ 11 + 12 March 2008: “Lead-free selective soldering” workshop
- ▼ 13 March 2008: “Lead-free manual soldering in line with IPC-A-610” workshop
- ▼ 15 + 16 April 2008: “Lead-free wave soldering” workshop
- ▼ 15 + 16 April 2008: “Lead-free selective soldering” workshop
- ▼ 17 April 2008: “Lead-free manual soldering in line with IPC-A-610” workshop



Good partnerships pay off

Contract manufacturer ESCD relies on ERSA technology

By Stefan Wurster

Elektronik Service Christoph Dichte (ESCD) in Brunsbüttel is a permanently growing contract manufacturer in the electronics industry. ERSA has supported the company reliably for many years as the system supplier for soldering technology. ESCD was established in 1978 and now specialises in manufacturing assemblies. In the first few years the company mainly produced weighing computers. They then developed hardware and later software for the products they had themselves

developed. Since 1986 ESCD has been producing assemblies for medical, sun protection and building control systems. The production area has now grown to 1,200 m².

In recent years the focus has been on THT and SMD. So the Brunsbüttel company now has the opportunity to produce complex assemblies at a high quality standard on two SMD lines. This is achieved by the high performance

production lines which work with two ERSA HOTFLOW reflow systems amongst others. ERSA expertise is also used when it comes to wave soldering. Here the Christoph Dichte team relies on the strong performance and flexibility of the EWS330. All components can be produced to meet RoHS standards on all lines. In order to further strengthen the market position, ESCD now plans to invest shortly in an ERSA in-line selective soldering system.

Debut in Mühlhausen

First Huber Technologies Days a great success

By Martin Causemann

At the start of October over 60 visitors from the electronics processing industry came to the first Huber Automotive Technology Days in Mühlhausen, near Stuttgart. A wonderful success for the debut of this event. The subjects to

be discussed included new methods in lead-free soldering technology, integrating AOI and ACI inline systems and presentation of the new ERSA VERSAPRINT S1 screen printer by the ERSA employee Wolfram Hübsch.

The mixture of contract and electronics manufacturers for automotive, consumer and medical technology made the discussion very exciting for everybody involved. The production tour was one of the highlights as was the presentation of the new ERSA screen printer. In addition to presentations by Teradyne, Royonic, FUBA and Assembleon, ERSA's Meinrad Eckert made a speech on new trends in reflow and selective soldering. Jürgen Friedrich presented trends in lead-free technology to the expert audience and Ralf Walk gave information on reworking and inspection technology.

The event came to a cosy end with a joint visit to the Canstatter Wasen Festival in Stuttgart.

Impressed by the VERSAPRINT technology in the production line of Huber in Mühlhausen.



All doors are open for EPS

Door production with flexible moulds

By Hüseyin Ugurlu

EPS (expandable polystyrene) is finding more and more areas of application in daily life – the benefits are immense. For example, building insulation, floor heating, bath and shower tub supports, ceiling covings and, not least, packaging can no longer be imagined without EPS. In the USA, EPS has been used as an insulating material, for example for garage doors, for a long time. The fact that doors can now be made of EPS is something new.

„Pak Door“ is the name the Turkish company of Pakpen has given its polystyrene doors. They consist of EPS cores laminated with polystyrene shells.

In order to be able to produce the various decorations of the door models, the EPS core is produced with most flexible moulds on KURTZ shape moulding machines of the K 1121 size. In this way, it is possible to produce up to six different models with only one mould. The refitting time is slight and the mould does not have to be dismantled.

For out-of-the-ordinary and exotic doors, blockmoulded goods with a high density are used. The blockmoulding plant was also supplied by KURTZ and especially at high densities it enjoys the trust of the customer who has to fulfil special requirements made of the EPS core.

Alongside the differing design variants, the light construction is above all a decisive advantage in comparison with conventional doors. Precisely in multi-storey buildings, the total weight is significant. EPS doors make a contribution to reducing it. In earthquake areas, for example, this is useful. In addition, these light doors also manifest good heat and sound insulation properties. Their stability is also better, as they have no cavities in the interior. One must also not forget the scratch-resistance of the door surfaces. These benefits thus make the doors wide open for the new EPS application.



Low weight and good heat and sound insulation properties are decisive advantages of polystyrene doors which are produced on KURTZ shape moulding machines K 1121.

KURTZ scores at K

THE meeting place for quality,
cost-reduction and delivery service

By Harald Sommer

All the expectations were exceeded - this is the concordant conclusion by most exhibitors at this year's K in Duesseldorf - and KURTZ can unconditionally agree. Especially, as the prospects of a further positive business development have been confirmed once more, because: KURTZ was able to seal concrete business deals in Duesseldorf. According to the trade fair company, around 240,000 visitors from more than 100 countries attended the K trade fair in October.

KURTZ presented itself at a stand about 300 m² in size under the motto „THE meeting place for quality, cost-reduction and delivery service“. To match the motto, the particle foam processing industry from all over the world met at KURTZ, in order to get information on innovations and trends from the world's market-leader.

Multi-process shape moulding machine

The centre of interest was formed by the K 813 HP MP shape moulding machine from the TOPLINE family. With this multi-process shape moulding machine, KURTZ presented a machine which cannot only process all particle foam materials such as EPS, EPE, EPP and copolymers, but is also in a position to adapt various mould systems, such as the mould plates and frames as they are generally used in Europe and also the monoblock moulds customary in Asia and America.

With this new functionality, moulds can also be operated according to the LTH and Eco-LTH technology developed by KURTZ in the mid-1990's. More than 70% energy can be saved with the LTH technology. The machine is equipped with

the removal, stacking and sorting system customary in Europe.

New block mould generation

At the „Block Processing“ information centre, the new trend-setting ECOLINE block mould generation was presented. With a new venting and steaming technology adopted from the shape moulding technology, KURTZ succeeded in setting a benchmark in block processing. Essential features are the optimum block quality, energy savings and short cycle times. In addition, the raw material excess was further optimised. In this way, the permanent rise in prices on the raw materials and energy side is impressively taken into account.

Pre-expander of the X-Line series

A particular eye-catcher once more was a pre-expander of the X-Line series. When it was launched three years ago, the prototype of this batch pre-expander family was prominent. In the meantime, the X series has been extended by three further types. Their remarkable design has asserted itself. Due to its space-saving design and its flexibility in machine installation and raw material feeding, this pre-expander is particularly suited for existing processing factories with limited space. Gentle material transport and material feeding, filling level measurement, also for coloured material, by a vibrating sensor, optimum control and steam distribution as well as a fluid bed with a sloping floor for removal of residues round off the highly capable pre-expansion system.



Kurtz SERVICES

A further focal point was the presentation of the new Kurtz SERVICES business segment. In accordance with the vision of the Kurtz Group, Kurtz SERVICES optimises quality, costs and delivery service in our customers' manufacturing processes. Top subjects such as TCO (Total Cost of Ownership), production facilities valuation or teleservice with live presentation were presented to the specialised audience in an impressive way. The Kurtz Group service programme was thus given a new dimension.

D-Log makes operations transparent, as this incorruptible spotter monitors and documents the physical variables of the supply media in the processing company. For each production facility the single individual operation tolerances are stipulated. As a result a safe operation is guaranteed and flawless, constant process parameters can be verified. At the same time, D-Log visualizes anomalies and helps to avoid production rejects.

The new separable filler generation, B-Jet, excels through its user-friendly design. The new plug-in connection allows for an opening in a matter of seconds which optimizes both maintenance and installation in the mould. The B-Jet is particularly low on energy, reduces the mould changing time and is vacuum and pressure-tight.

The varied possibilities of use of the particle foam materials were impressively shown with an extensive exhibition of sample parts made of EPS and EPP. The range of the EPS formwork elements for construction (ICF), the EPS transport pallet laminated with foil on all sides as well as applications with dual-density technique, in-mould-skinning or skin moulding impressed the specialised visitors.

*Well attended:
The KURTZ booth at K'2007.*

Flexibility is in trend

Mobile pre-expansion solutions



Mobile pre-expansion plant
– realized by KURTZ in a 40' container.

By Stephan Gesuato

In order to comply with the demand of our customers from the particle foam processing industry for the greatest possible flexibility, KURTZ developed modular solutions during the past few years which are being permanently optimised. For example, we are talking about shape moulding plants which can be set up and dismantled within two to three weeks. Apart from the building, nothing is left behind.

Even pipe installations are assembled in a modular way on line segments and are taken away at the end. Instead of a condensate collection line, the machine condensate is trapped on each individual shape moulding machine and conveyed to the cooling tower via pumps. Over

and above this, moulding plants were developed which are positioned on mobile platforms, somewhat like semi-trailers.

An interesting example is a mobile pre-expanding station completely installed in a container. In one half of the container, we find water processing, steam generation and a matching steam accumulator. A wall separates it from the other half, in which there is a compressor with a refrigerating dryer and a compressed air store alongside the batch pre-expander VSD 700 with its fluid bed. All the essential elements are designed in such a way that they do justice to the permanent change in operating conditions and the vibrations

from the frequent transports. Heavy and high elements are secured on the base and the frame of the container with permanent transport securing elements. The container is fitted with controlled ventilation and air-removal systems and has frost monitors, which prevent the lines from freezing in winter. For the correct mode of procedure with respect to the machine start, machine stop, transport and winter operation, checklists are fitted.

In the construction of this system, it was also a question of a particularly homogeneous distribution of bead sizes with high densities which is a condition for the final application and is regularly monitored.

Fitness for a second machine life

Retrofit and rebuild solutions from KURTZ and ERSA

By Jörg Roggensack

In the investment goods industry, modernisation (retrofit) and general overhauls (rebuild) of machines and plants mean a favourably priced alternative to new investments. There are a number of components which – either refurbished or provided with the necessary new technique – can quite easily carry on working for a number of years. „Retrofit“ means re-fitting, re-equipping, supplementing as well as modifying technical systems. On the other hand, re-working, i.e. making as new, is called a „rebuild“.

ERSA and KURTZ offer both retrofit and also rebuild solutions as part of their after-sales service. Retrofit measures have established themselves as favourably

priced with short machine standstill times. Alongside technical innovations, retrofit measures also create further additional benefits for the operators:

Rebuilds are carried out increasingly in Germany and also in the USA by KURTZ North America Inc. (KNA). The machine is completely dismantled, the individual parts cleaned and subjected to a thorough test. All the essential components are replaced or overhauled and the machine thus put into a good-as-new condition. It is then put back together again according to the original specification in connection with the optimisations carried out. After this, the machine is tested like a new one and supplied with a matching quality certificate and guarantee.

This additional benefit is not so much of a side-product, but an integral part of the total solution on offer.

- ▼ reduction of standstills and down-times, thus increasing availability
- ▼ quality improvement and thus increase of productivity
- ▼ higher operating comfort
- ▼ possibilities of interlinking and thus teleservice-capable
- ▼ securing of spare parts.

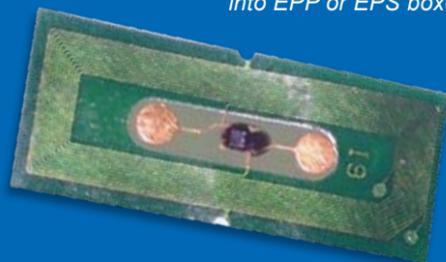


As good as new: before

after

A smart box

Provide important information on contents, transport routes, refrigeration chain etc.: RFID chips moulded into EPP or EPS boxes.



With an RFID chip (Radio Frequency Identification chip) on board, each box or consignment carrier can be located all over the world. RFIDs can store up to 64 kB of information about contents, destination, transport route, refrigeration chain or maintenance history on the chip and provide them via radio communication at a distance of up to 100 metres. RFIDs are so robust

that moulding them into EPS or EPP is possible without any problems regarding the process. Various possibilities of installation have been developed by KURTZ. With suitable measures the RFID chips can either be moulded visibly onto the surface of a box or pallet or it might be inserted to be well protected in the interior of a moulded wall. Legibility is not impaired by the protecting foam.

Profitability and service have maximum priority

By Jörg Roggensack

For us, a „good deal“ does not begin with the sale of a machine, nor does it end there. With our foresight of planning, our many years of realisation know-how and under consideration of the Total Cost of Ownership Approach (TCO) we support our customers on all service levels.

This is exactly where we distinguish ourselves from the mass of our competitors - in particular from the Asian area. Logistically, this is ensured by our world-wide sales and service network with numerous branches and representations.

In the meantime, a world-wide change can be seen in decision-making for an investment: whereas it was almost exclusively the cycle times which counted alongside the price some

years ago, the course of time meant that energy consumption increasingly became the centre of attention. Today, people go even one step further: great importance is placed on good and present technical service. In the age of „just in time“ deliveries, long and unplanned machine downtimes or large warehouse stocks have become unimaginable.

But the economic benefit of a good and easily accessible technical service is often a variable which is difficult to measure and hard to calculate for a machine user, at least before decision-making. In many companies, a useful value analysis respectively increasingly also the TCO approach is chosen for the decision-making. The machine availability and various

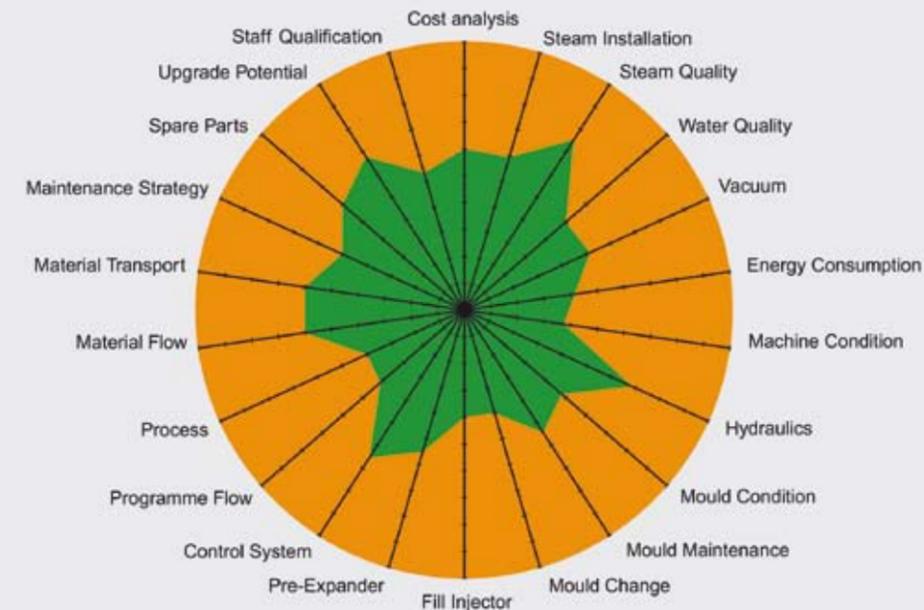
services are provided with a very high valence. To achieve a good result in this analysis, a number of individual parameters from the area of the services play a part.

Despite the sometimes seductive nature of the prices of our competitors' machines, a dominating decision criterion in an investment ought to be integral profitability. In this context, not individual segments, but instead all the influential variables of the overall system considering the TCO approach should be observed. If this is the case, then we are out in front in the calculation of the relative profitability.

Make use of our know-how potential which we provide you with as a partner. It pays its way!

Production facility valuation

Increase productivity with Kurtz Value Services



Example: Moulding process

By Jörg Roggensack

An essential product within the Kurtz Value Services is the „production facility valuation“ - also known as machine, plant or process audit. In it, our specialists systematically analyse all the relevant sequences and processes and determine weak points counteracting an increase of profitability and productivity. Alongside an extensive report, our customers are also given a graphic portrayal of the analysis. In this way, weak points can be recognised immediately and simply.

Unlike classical audits, our experts give advice on the remedying of the weak points found. In addition and if so requested by the customers, a programme continuously reducing the weak points is jointly drawn up. For lasting securing of the ideal production conditions created, conclusion of a service agreement from the „Total Maintenance Quality Service“ product area is an ideal supplement.

KURTZ customers have a decisive lead

Kurtz Services portfolio

Extensive offer for optimum prerequisites;

- ▼ support in product development
- ▼ project analysis
- ▼ determination of the ideal production machine
- ▼ matching with pilot runs
- ▼ detailed production of a complete system layout
- ▼ project management
- ▼ optimisation of the material flow
- ▼ installation and commissioning of machines and plant components
- ▼ training in the area of machine operation, process know-how, maintenance etc.
- ▼ holding of audits of existing systems
- ▼ spare part management
- ▼ reliable service, on-site maintenance contracts
- ▼ general overhauls of machines.

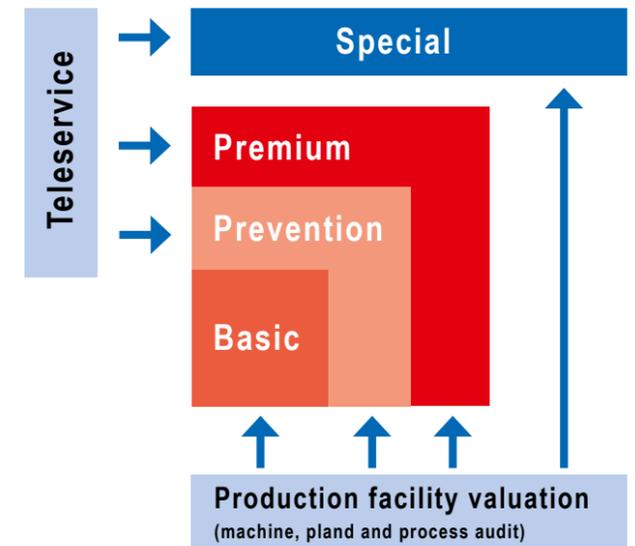
New package of Kurtz SERVICES

By Jörg Roggensack

Together with the ERSA and KURTZ service managers, the Corporate Services Division has developed a new service system with a modular set-up. From January 2008, we will offer flexible, multi-phased „ServicePaks“ tailor-made to match individual requirements. The new Basic, Prevention, Premium and Special service agreements each expand on the previous one and are comprised of standardised modules. These ServicePaks are supplemented by Teleservice, SoftwarePak and the production facility valuation (machine and plant audits).

In this way, the Kurtz Group matches its vision by offering complete and tailor-made service for maximum productivity and maintenance of value of the machines and plants installed at ERSA and KURTZ customers. In addition, planning security is increased and cost transparency created.

Would you like to learn more about the new ServicePaks? Then send us your email today to joerg.roggensack@kurtz.de



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