

21.

Edition

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11th year

Kurtz

... NEWS



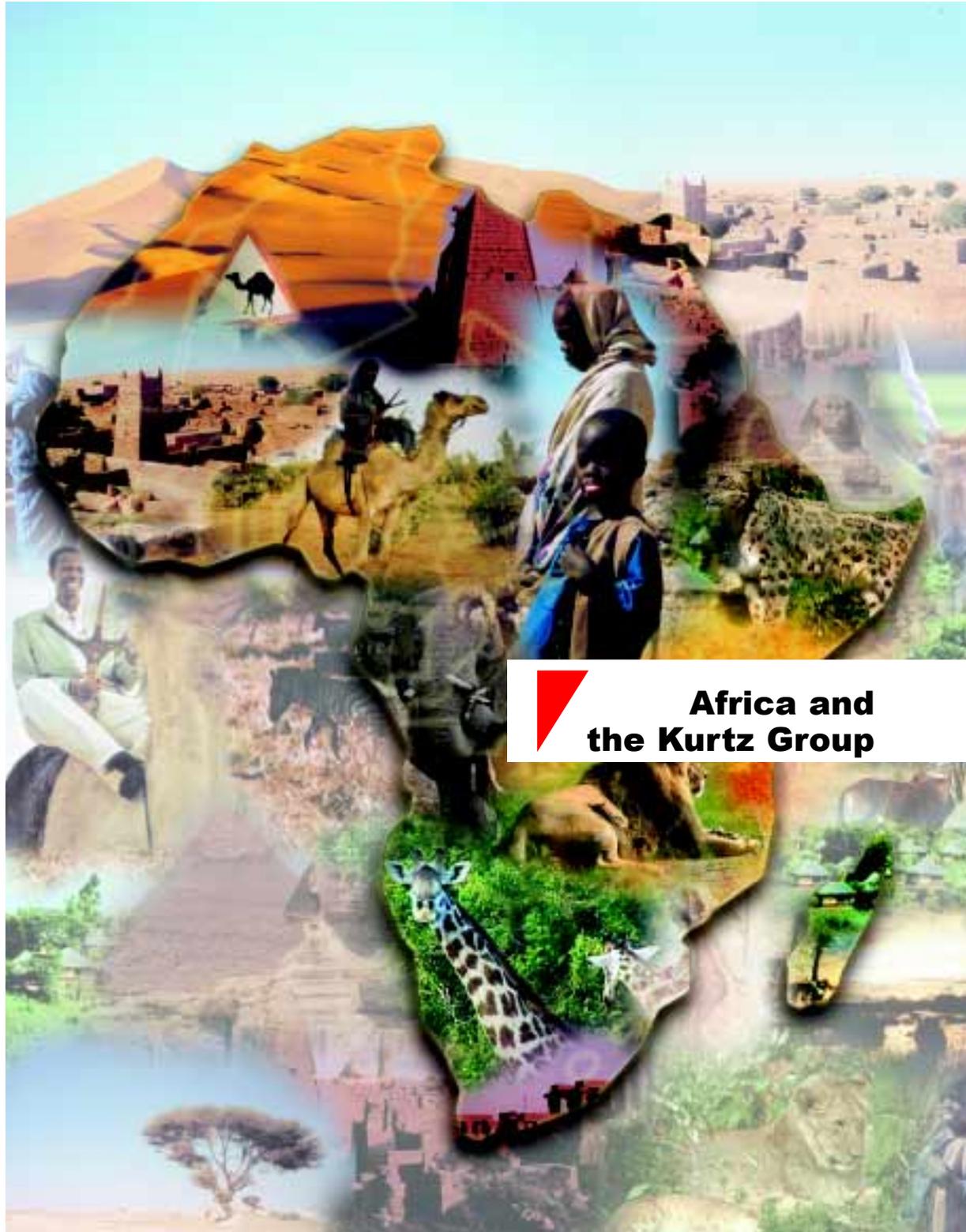
The customer and employee journal

**Fish boxes and
tinned food**

**Robot technology
with block moulds**

**Fresh fish
from Lüderitz**

**Kuno's cool
synthetics box**



**Africa and
the Kurtz Group**

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What do fish boxes and tinned food have to do with Africa?



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Africa?! Why Africa of all places? This, esteemed readers, is doubtless the question you are dying to ask.

We are proud that Kurtz News is now in its 21st edition. And we were especially proud to note how many readers took part in the Jubilee Competition – more on this subject in this edition. We are also printing the results of the questionnaire, in which you on the one hand encouraged us to carry on the good work, but on the other hand urged us to tackle new and more difficult topics.

This is one of the reasons why Africa is the subject of this issue.

„At home all over the world“ is the motto which has been written large over the work of the Kurtz Group. And this is why this edition is to be the first of a series of Kurtz News devoted to the continents of the world. We thought we would go about it alphabetically, and start with A for Africa.

Given that this edition is, as has been mentioned, Kurtz News No.21, many of the members of the editorial committee were speechless when they heard that it was going to be devoted to the continent of Africa. So you are not the only ones to have been surprised by this fact!

After having gone into our chosen subject in greater detail, we found that Africa, which was after all once the cradle of humanity, is a continent in which we have a variety of extremely interesting projects. And that is what we want to convince you of in this edition of Kurtz News.

We are sure that you will be as fascinated as we have been by the adventures our writers have been through, whether it was a journey off the beaten track through the Ténéré Desert in a landrover living off tinned food, or the hardly less exciting task of planning a complete expanded polystyrene processing plant for fish box production.

Africa has considerably more to offer than we might imagine and is certainly a land full of surprises.

„The views are immensely wide. Everything you see makes for greatness and freedom, and unequalled nobility.“ This is a quotation chosen by our leader-writer to evoke something of the air you breathe in Africa.

Read on and do as we have done – let yourselves be captivated by the strange, colourful and fascinating world of the „Dark Continent“.

Out of Africa

„I had a farm in Africa, at the foot of the Ngong Hills. ... From the Ngong Hills you have a unique view, you see to the south the vast plains of the great game-country that stretches all the way to Kilimanjaro; to the east and north the park-like country of the foothills with the forest behind them, and the undulating land of the Kikuyu Reserve, which extends to Mount Kenya a hundred miles away – a mosaic of little square maize-fields, banana-groves and grassland, with here and there the blue smoke from a native village, a small cluster of peaked mole-casts. But towards the west, deep down, lies the dry, moon-like landscape of the African low country. ... The views were immensely wide. Everything you saw made for greatness and freedom, and unequalled nobility.“

Africa, as a continent second in size only to Asia, measures 8000 km from north to south and 7600 km from east to west. With a surface area of 30.3 million km² and 760 million inhabitants, it accounts for 20% of the earth's land surface and 13% of the earth's population. Africa is part of the Gondwana, as



are eastern South America, Arabia, the peninsula of India, and Australia (continental drift). The lowest point is Lake Assal in Djibouti at 173 m below sea level and the highest point is the peak of the 5895 metre-high Mount Kilimanjaro in Tanzania.

Whether one's view of Africa is romantically tinted, such as Karen Blixen's in her autobiography *Out of Africa*, or soberly factual, Africa is a continent of quite indescribable contrasts. Common epithets range from dreamlike, unimaginable, or wildly romantic to crisis-

prone, war-torn, a danger zone, the unpredictable land, even the lethal land.

The variety in this extraordinary range of descriptions is also reflected in social and economic statistics. It is practically impossible to treat Africa as one unified economic area. While South Africa or Namibia have per capita income rates of US\$ 3130 and 2250, Tanzania and Mozambique barely maintain rates of US\$ 170 and 90. And the rate quoted for South Africa is still significantly lower than the average for Western Europe,



not to mention the fact that the distribution pattern favours the relatively few very rich, with the „top“ 10% of the population disposing over 50% of total income.

The relative significance of South Africa for Germany is reflected in export figures published by our national statistics office, which tell us that of Germany's total exports to Africa in 2000, one third went to South Africa alone. At € 10.4 billion, Africa accounts for something like 1.7% of Germany's total exports, roughly the same as the figure for exports to Hungary.

This indeed begs the question as to whether Africa really has such an insignificant role to play in German, and indeed European, foreign trade policy as is sometimes thought.

One possible development may be envisaged along the lines of what has happened in China. True, Africa only has around half the population of China, but there is nevertheless huge economic potential in such a vast mass of population. At the top of the current agenda is, as was the case in China, the task



of creating the conditions for economic growth, though this need not be done with the same methods as in China. For Africa the critical factors at this stage are political peace, and on that basis the promotion of stable constitutional structures capable of developing towards market economies. This would in its turn provide the basis for the promotion of public and private investment in Africa, in itself a condition for the increased linking-in of the continent into the processes of economic globalization.

There are many instances of good starts having been made in these respects, and there is no lack of slogans to fuel the change – democratic awakening, protection of human rights, an end to apartheid, parliamentary democracy. But it is not so common to see these slogans fulfilling their promise on a large scale.

This is the reason why the economic status of many African states is – in spite of considerable financial and human investment – no higher than that of deliverers of raw materials.

There are some exceptions to this, as is shown by stories in these pages. Often we can see parallels with coffee cultivation as described by Karen Blixen: a wearisome process with low yields, and yet exciting and beautiful in its way, and once the project has been completed, something which one can justifiably be proud of:

„We grew coffee on my farm. The land was in itself a little too high for coffee, and it was hard work to keep it going; we were never rich on the farm. But once a coffee plantation has got hold of you, it is something that does not let you go, and there is always something to do on it: you are generally just a little behind with your work. In the wildness and irregularity of the country, a piece of land laid out and planted according to rule looked very well. Later, when I flew in Africa, and became familiar with the appearance of my farm from the air, I was filled with admiration for my coffee-

plantation, that lay quite bright green in the grey-green land, and I realised how keenly the human mind yearns for geometrical figures.“

„Geometrical figures“ constructed by our engineers provide us with the basis for the successful construction of machines for factories, one modern variant on Karen Blixen's coffee plantation.

There are many examples of the „coffee plantations“ which we have facilitated. KURTZ shape moulding machines, for instance, are used in fish box production



in Mauritania and South Africa. Since 1990 ERSAs have been exporting wave and selective soldering installations to South Africa, with Bosch as one of their customers. And KURTZ cast parts are used in Weing wood moulding machines.

Since 1995, KURTZ Systems (Pty) Ltd. has been central to our „coffee cultivation“ activities, reflecting in its role as sales and service support facility the Kurtz philosophy: „At home all over the world“. Especially in Africa!

Development policy in the strictest sense is not part of the brief of a commercial enterprise. But there is no reason why development and economically determined trading should not exist harmoniously, as is shown by many examples in this number of Kurtz News. What is most important in Africa – and everywhere else, for that matter – is to roll up our sleeves and get on with the job. Actions speak louder than words.

Men in the majority – or are there just no interesting women around any more?

The results of the Jubilee questionnaire

„Kurtz News is dominated by men – aren't there any interesting women to read about?“ This was just one of the many interesting questions asked by readers in response to the questionnaire we issued in Kurtz News 20.

At this point we would like to express our gratitude for your lively response to the questionnaire, on the basis of which we have been able to draw some interesting conclusions for the future. We were particularly pleased to hear that there is a high level of interest in technical articles, which are nevertheless „constantly interesting and comprehensible for non-specialists“. Overall, 99% of the respondents rated the articles as interesting or very interesting.

The spread of the replies was also revealing, with 80% reading Kurtz News regularly and the remaining 20% occasionally, if no more than that. Two thirds of the replies came from customers and one third from staff. These figures show the soundness of the Kurtz News concept according to which the customers and staff are catered for with one single publication.

The distribution of the replies by country of origin gave us some cause for concern. Roughly two thirds came from Germany, and just one third from abroad. This means that we must ask ourselves whether Kurtz News does not perhaps have a German bias, or, if this is not the case, what the reason might be for this disproportion in the figures in comparison with the proportions of our market figures. It may be that the series of continent-oriented editions, in which this number is the first, will do something to help make Kurtz News a more genuinely international read.

A number of interesting suggestions were made, among which the following are reproduced without comment:

- Reports on participation in research projects
- Portraits of individual departments
- Not enough on environmental questions
- The „first“ Hotflow is still running in our plant

We also came in for some criticism:

- We receive Kurtz News only irregularly.
Ed.: We are just in the process of revising the address list. In case delivery should still be irregular, please let us know.
- The quality of the photos is sometimes not of the best.
Ed.: We will do what we can to improve the matter, but the low quality is sometimes a result of the original material. But we are also working on getting better originals.
- The hobby article in the ImTeam section gets too much space.
Ed.: We will try to keep the articles more concise and to increase their visual interest with photos.
- There is too much text and not enough pictures.
Ed.: See above, and we will try to redress the balance.

But there were of course positive replies – indeed the vast majority of the replies were positive! The following are reproduced without comment:

- Carry on in the same vein, you're doing great!
- Good presentation, strong on facts.
- Continue the good work ... you start and be the best ...
- Congratulations on your Jubilee, keep up the good work.
- One of the best company magazines I know.
- I look forward to every issue
- Beautiful layout and presentation. Quality of the journal is superb.

At this point we would like to thank all those who took the trouble to fill in and send back our questionnaire. It has been a great help to us!

At the same time we would like to invite you, should you have something interesting to contribute to Kurtz News, to let us know and let us have it. Articles are always welcome; whether from customers or staff, from men or women, they just have to be interesting.

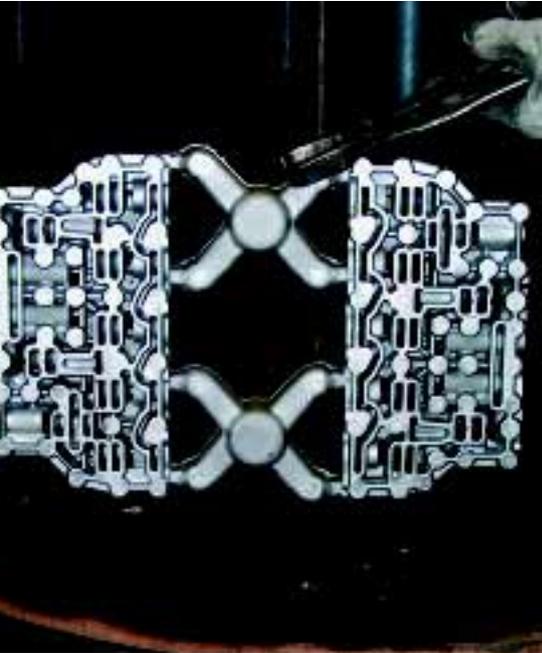
For some of you, filling in and sending back our questionnaire has brought you double returns. Not only did you contribute to the improvement of Kurtz News with your suggestions and criticism, but you were also among the lucky winners in our raffle.

Congratulations!

The first prize in our Jubilee Edition raffle went to Herr Schölich from the company Schlaadt in Dillingen. Armin Gebhard of ERSA GmbH was the lucky winner of a cycling helmet. All other winners have already been informed or have been sent their prizes. The photos show our two main prizewinners.



No sand in the works: KURTZ aluminium cast parts for ZF Friedrichshafen AG



vehicle as simple as one could possibly imagine. The driver chooses his mode of operation and points the vehicle in the right direction. Driving and operational speed are controlled with the electronic gas pedal. Everything else is regulated by the ZF-gearbox.

channels and internal chambers and ensure that they are free from shrink holes and oil-resistant. This casting procedure makes it possible to cast molten metal with low gas content (hydrogen), which is an overall prerequisite for high-quality cast parts. It ensures high stability levels, lowers stretch and raises the cast parts' pressure- and oil-resistance.

Gearbox production at ZF in Passau

Tractor manufacturers John Deere, Deutz, Fendt and CNH with brand names Case and Case-Styr use ZF-gearboxes and ZF-drive systems. They all use the ZF infinitely variable gear systems and combine the hydrostatic advantages of variable regulation with the unbeatably high efficiency of the mechanical drive.



ZF Friedrichshafen AG

KURTZ ZF is the biggest independent specialist for propulsion and conveyor technology in the world. Wherever you come across ZF systems – most likely under the bodywork of the best-known automobile manufacturers – you can be sure that you will be dealing with state-of-the-art technology.

For six decades now, the propulsion technology experts at ZF have been getting to grips with the daily requirements of those who work in agriculture. At ZF, product groups are conceived and developed that contribute to higher productivity on cultivated fields, in pastures and on the road. The highest priorities are that these machines should be environmentally friendly and highly durable. It is now many years since ZF made the control systems in their gearboxes automatic. They were the first producers in the world to make electronic drive- and gear-control a reality. Automatic functions and driving programmes make handling the

Advantages of the KURTZ low-pressure casting process

KURTZ supplies aluminium cast parts for the hydrostatic gearboxes. The low-pressure casting process ensures that the exacting requirements made by these parts are met. This is the only process which can cast parts such as these with their extreme wall thickness differences and their labyrinths of

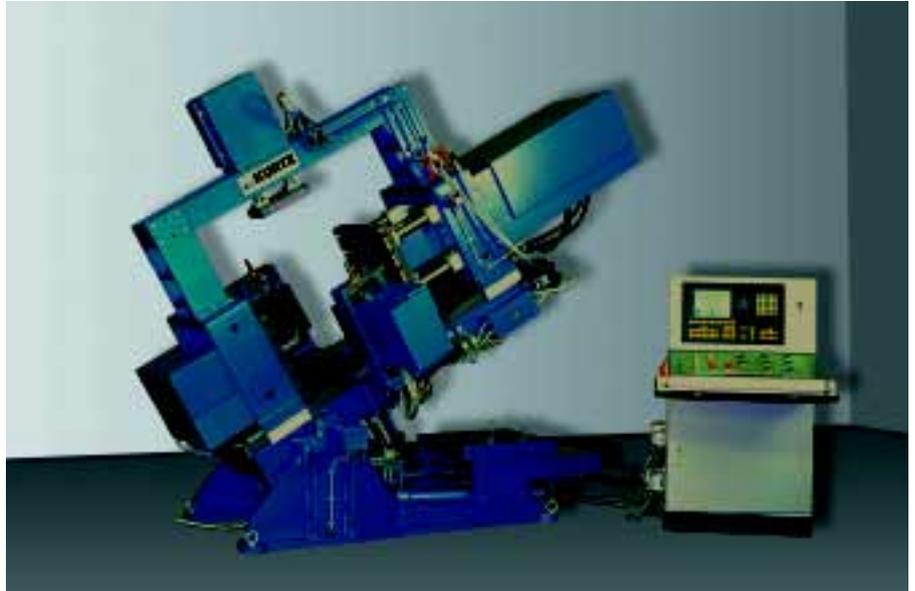


From Foundryman for Foundrymen

 „From foundryman for foundrymen“ is no empty **KURTZ** motto in the case of the Kurtz Group, which not only builds machines for aluminium foundries but also has aluminium foundries of its own. This makes for a two-way know-how flow – knowledge of foundry machine construction acquired in practice is available when it comes to building caster-friendly machines, and vice versa. A good example of synergy of this kind is the innovative duo tilt-pouring machine which the Wiebelbach aluminium foundry has recently invested in.

The foundry machines department recently developed an innovative and exceptionally economical dosing furnace, with very simple handling mechanisms. But before putting the new furnace on the market (one customer had already made serious enquiries with a view to a multiple order) the whole thing of course had to be given a thorough testing under genuine production conditions. What could have been more natural than to carry out this testing in the company's own aluminium foundry?

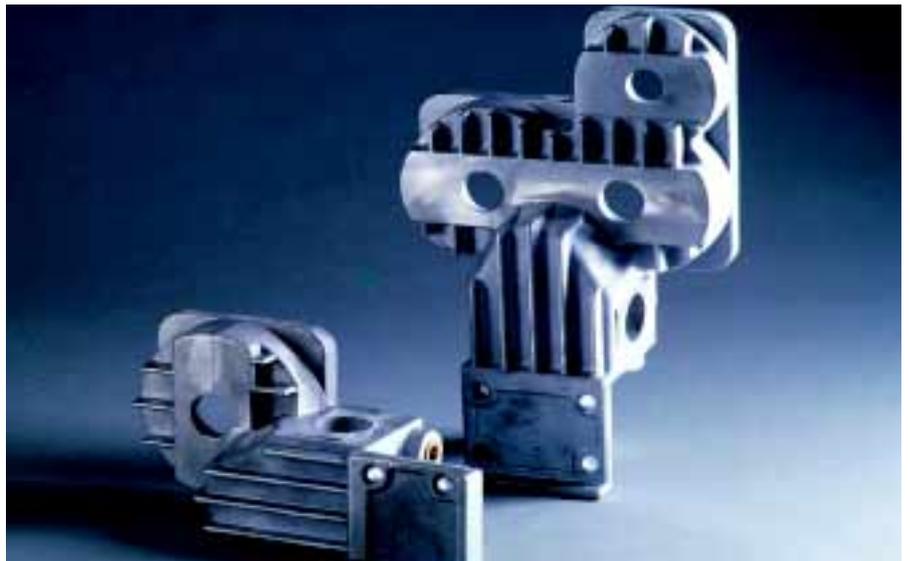
So it was that the aluminium foundry collaborated with the foundry machines department on devising a casting installation combining the dosing furnace with two tilt-pouring machines. The construction is modular in concept, the main elements being an automatic tilt-operating smelting furnace and a removing and stacking robot. This will facilitate highly economic production of as many as 45,000 motor brackets and 12,000 pedestals, that is to say, the number necessary to service our current orders. And the installation has of course plenty of free capacity for further commissions.



It will certainly be well worth making enquiries and comparing prices; the results of these operations and the effect of optimization work will finally benefit the foundry's machine construction activities.

Made by foundryman for foundrymen – at Kurtz this is not just an empty slogan, but day-to-day practice.

The new installation will have the following specifications:
Alloys: GK-ALSi7/Si9/Si10Mg, GK-AlCu4Ti
Temper-hardening: T6/T64 linked into the production process
Wall thicknesses: > 5 mm (necessary in view of the tilt-pouring procedure)
Weights: ca. 0.5 to 5.0 kg
Output: ca. 10,000 to 150,000 p.a.
Quality assurance: Smelting analysis and x-ray integrated in the procedure



Solid wood panels – KURTZ do it quickest

 Grecon Dimter South, the Weinig Group's special-**KURTZ** lists in wood optimization, scored a notable success when Swartland, one of the world's biggest producers of windows and doors, decided to use the Dimter ProfiPress 3500 at their Atlantis works near Cape Town.

means that the machine constantly takes advantage of its full depth of 1300 mm, regardless of the breadth of the board being manufactured. It is also possible to use several lanes in parallel in order to make the most of the 3500 mm breadth.



Photo: Dimter ProfiPress 3500 – Top performance levels in laminated solid wooden boards

This machine is designed for high-speed production of quality solid wood panels, and was thus comfortably up to fulfilling Swartland's demands and fitting in with their ambitious plans for rationalized and flexible production. Swartland's new seven-lane ProfiPress 3500 can glue at a rate of 54 pieces per minute, the single piece being 400mm long with a cross-section of 35mm x 19mm. This makes the Swartland machine the quickest ProfiPress in the world.

The Dimter ProfiPress 3500 has a pressing area of 3500 x 1300 mm. The „cross-laminating“ system

The success of the Weinig machines must be attributed to their high proportion of cast parts. The fact that the principal components are in grey cast iron has a very positive effect

when it comes to shape-cutting. They also have considerably better absorption qualities than welded constructions, and offer definite advantages when it comes to the hard business of competitive costing. As for the drive components, the gear-box casings and lids used are produced by KURTZ in a special casting process and delivered in large quantities direct from the aluminium foundry once the machine has been optimized.



Weinig in Africa

Weinig has had a presence in Africa for about 25 years now. At first as a limited company, and then at the head of an enterprise group with the subsidiaries Dimter, Grecon, Waco and Raimann, the worldwide No.1 company in the field of solid wood processing has a long list of African customers who they have supplied with machines and know-how. The main market has always been and still remains South Africa, where the Weinig Group has high-performance representatives who are also able to offer excellent servicing. Whether we are talking about planning, moulding, precision cutting, cross cutting, edge gluing or gluing, the Weinig Group is a powerful firm to work with in Africa.

Photo: Unimat Gold – a new moulder which has already acquired great popularity in South Africa.



MBW at the Südblech trade fair in Sinsheim

After a first appearance at the Südblech trade fair in **KURTZ** 2000, the metal-machining company Metallbearbeitung Wertheim GmbH (MBW) was once again among the exhibitors in Sinsheim in 2002,



taking „Get a picture of what we are really like“ as their slogan this year. The fifth Südblech, which took place from March 6th to 9th, may be one of the youngest trade fairs in the sheet metal production sphere, but is already one of the most important, as was demonstrated by an increase of 22% in the number of exhibitors on 2000, and of 50% in the exhibition surface area.

Using its own home-designed and home-produced stand, MBW was well equipped to give a convincing account of its performance capacity to all its various visitors. One particular exhibit – not up for sale, it should be added – was a Litfaßsäule, one of those cylindrical pillars usually used for advertising, and shown in the illustration. Punched into the cylinder were a whole range of different contours taken from a variety of real production parts. A further highlight was the MBW-produced film about the various production technologies for

sheet metal machining in operation at MBW. The film exerted an quasi-magical power of attraction over all that set eyes on it, customers, competitors and casual visitors to the trade fair alike.

MBW's participation in 2000 had brought exceptionally successful results, and this year was an excellent opportunity to intensify and extend the contacts made the first time round. Discussions were conducted at a very high level and promise well for the future.

As Managing Director Ewald Garrecht put it: „Last year's economic depression now seems to have been overcome and from our many discussions with customers it was clear that they were far from pessimistic about the coming year.“ This has given MBW good reason for confidence that new challenges will soon be coming their way.



By way of an echo to the slogan „Get a picture of what we are really like“ MBW's visitors were entitled to a raffle ticket for a digital camera.

The lucky winner was Mr Engelhardt of Stratec Biomedical Systems AG in Birkenfeld, who was photographed receiving his prize.



HWS Greensand moulding installation with KU



Since 1998 KURTZ has been cooperating with the company Heinrich Wagner Sinto – HWS for short – on developing a solution for combining controlled mould-filling with HWS moulding machines. The development work has been carried out by HWS on an experimental plant in their own technical facilities. These experiments have now led to the installation of a first production line using this process. The installation was put into operation in March 2002 at the Heilbronn company KK-BACHERT Metallguss GmbH.



Like KURTZ, BACHERT can also look back on a long tradition, having been founded in 1721 as a bell foundry. The firm is now in the hands of the seventh generation of the Bachert family and is

still active in the field of bell-casting. Aluminium-casting provides the firm with another leg to stand on, and when BACHERT took over the Neckarsulm firm KK-Aluformguss, their product range was extended with an eye to the growth market of the automobile industry.

The machine that BACHERT invested in is a new box-type greensand moulding installation with a box size of 1250 x 800mm and designed to maintain a rate of 50 castings per hour. This is the first time that the controlled mould-filling techniques which are well-known from low-pressure casting have been applied to greensand moulds. HWS have given the process the name Multi-Pouring-System (MPS). KURTZ's experience in the field of low-pressure sand-casting was invaluable when it came to controlled mould-filling. Similar installations are in operation in the development departments of a number of German automobile firms and of companies which produce cast parts with the Rapid-Prototyping-Procedure. There was an article about the machine installed for the company STEINRÜCKEN in KURTZ NEWS No.20.

When the concept behind this installation was being drawn up, account was taken of the whole range of possibilities offered by the control philosophy.

It was in addition necessary to develop a furnace concept which corresponded to the higher raw material throughput. One factor which made new demands was the weight of the castings – up to 30 kg each. Up to 1500 kg of molten matter, or melt, has to be made ready per hour.

The low-pressure casting part consists of a DUO-rotary disk carrying 2 low-pressure crucible-construction casting

furnaces. The furnaces each have a useful weight capacity of around 850 kg. While one furnace is in the casting position, the other is in a servicing position, which facilitates the filling of the furnace from the melting furnaces before the final metallurgical treatment of the melt is carried out. The melt is then degasified and brought to an optimal temperature level for the casting process which is to come. The final stage is the pressure-tight closing of the furnace and the putting in place of the rising pipe. This procedure guarantees optimal quality melt when the machine is in the casting position.

One critical factor for reproducibility in low-pressure casting is the exact recording of the starting point in relation to the point when the furnace is full. In this case the operator uses the manual operation device to establish the desired starting-point for the casting process.

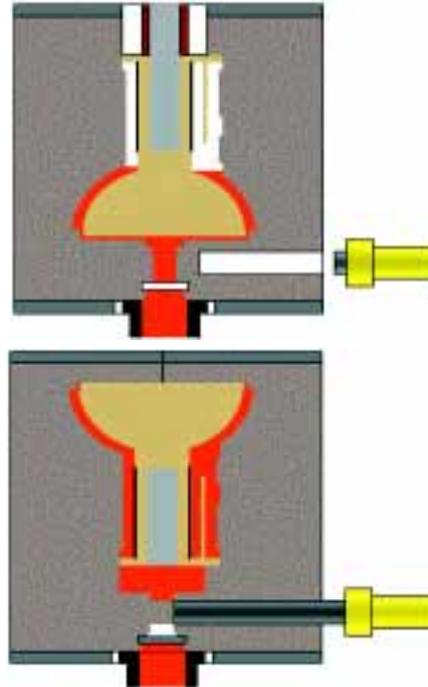
As in conventional low-pressure casting, the die cavity is filled by the rising furnace pressure in accordance with a freely programmable pressure curve. The pressure curve can be adjusted so that it exactly meets the requirements of the various cross-sections in the mould. This results in calm filling, with low turbulence. After the desired final pressure has been reached, the mould feeder area is closed off.



RTZ low-pressure controls

To carry out this closing an opening is pre-drilled on the back of the mould up to nearby the feeder. For the actual closing to take place, a cylinder pushes the remaining clump of sand into the feeder channel (Illustration 3). The result is a filled and tightly closed mould. The furnace pressure is lowered to the previous level and the box can immediately be removed from the pouring position. What brings about the high productivity of this casting process is the separation of the two procedural stages of „mould-filling“ and „setting“.

The hermetic closing of the mould makes it possible for it to be turned



around, which opens up further possibilities for the caster. The feeders can now be accommodated under the cast part. This means that at the mould-filling stage they have melt flowing through them right until the very last moment. After the mould has been closed and then immediately turned upside down, the fact that the feeders, still filled with high-temperature melt, are now on the top of the mould results in ideal feeding conditions and in consequence improved material qualities. The effectiveness of the feeding volume is raised and permits a reduction in the proportion of return material.

Finally, controlled mould-filling, in contrast to the conventional gravity casting methods, facilitates the production of parts with extremely thin walls. The first components of this kind are already being tested, and we expect to be able to report back on further applications for this process before long.

Africa in Nuremberg

 This year's SMT trade fair, which was held from 18th to 20th June in Nuremberg, was really a hot event. But not only because ERSA presented the latest highlights of its product range being the largest world-wide comprising soldering systems and tools and inspection systems. - No, both exhibitors and fair visitors also had to withstand African temperatures inside the halls, because record temperatures for June of 39.4° Celcius were measured in Germany these days.

Consequently cool drinks were very much in demand. Although it was so hot the visitors were very interested especially in the new highlights of the ERSA product range. The ERSA HOTFLOW 2/14, the trendsetter for reflow soldering, as well as the new VERSAFLOW selective soldering system, member of the most successful selective soldering system family world-wide, were the focus of attention in the soldering system division.

With regard to the tools and inspection system division the IR / PL 550 A rework product family which had won the Vision Award earlier this year attracted most visitors.



ERSA and the history of soldering at the NEPCON



ERSA made a magnificent appearance at the NEPCON in Shanghai, China's most important trade fair specializing in electronics production. In addition to the



current products such as soldering tools, the BGA-Rework-Centre and Inspection Systems, the attractive stand also presented the history of electrical soldering. A time tunnel, specially made by ERSA for this purpose, housed an exhibition including not only historical photos and prints but also original soldering irons dating from throughout the last eighty years. These began with a

workshop soldering iron which ERSA's founder Ernst Sachs first had patented in 1921 and went through to the high-tech tools used today in ERSA's soldering stations.

The exhibition opening was graced by no less a personage than China's Minister for Industry and Information. As the representative of the Government, he received one of the first electric soldering irons, together with a certificate, for his ministry's museum, presented to him by the Managing Director of ERSA Asia Pacific Michael Chan, accompanied by Mark Cannon, who is in charge of ERSA's profit centre for soldering tools and inspection systems in Germany.

In view of the consistently positive response both to ERSA's involvement at the trade fair and its innovative palette of quality products, we feel sure we can look forward to doing good business on the highly interesting market emerging in China.



ERSA VERSAFLOW



One of the 100+ VERSAFLOW Selective Systems manufactured has gone to Africa.

That is correct! Africa, to be more geographical correct - South Africa (Nelson Mandela country) - received an ERSA Highspeed VERSAFLOW selective soldering system for Robert Bosch South Africa.

Robert Bosch South Africa (RBSA) is situated 50 km north/west of Pretoria (capital city of South Africa) in a town called Brits.

RBSA is producing automotive components (alternators, starters, DC motors and electronic parts) for the South African motor manufacturing market (Daimler Chrysler, VW, Toyota, BMW, Opel and Ford) as well as for the exporting of some product types.

The electronic factory in RBSA produce engine management systems (EMS), electronic control units (ECU) and body electronic products for various motor manufacturers. The electronic factory started with a new body electronic range of products that require a selective soldering process and this is how the Robert Bosch South Africa and ERSA Selective Solder saga started.

The automotive electronic product that requires selective soldering had relays and connector pins to be soldered. RBSA required flexibility due to different PCB types, a 30 seconds throughput time in the selective soldering process and we required a machine within a 14 week delivery time to comply to production schedules. Yes and the all important cost issues.

W has landed in their 4th Continent - Africa



All this as well as the standard BOSCH requirements for a high level of quality and reliability. ERSA addressed our request and concern in a professional manner and offered RBSA the ERSA High-speed VERSAFOW system with the following features:

- dual nozzle spray flux system
- flux spray through a mask principle
- dual pre-heaters
- multiflow and precision nozzle selective solder systems

This flexibility, speed and modularity that the ERSA system offered, made it easier for RBSA to make a decision.

After three months of investigation of different machine suppliers RBSA decided early in 2001 to purchase the ERSA system. The decision was based on technical specifications, cycle times, local (South African) support, cost factors and experience from other BOSCH factories throughout the world.

The delivery time of the machine was the big obstacle for RBSA and

a challenge for ERSA. Although this period did not make me a younger man, ERSA came through with their promised delivery time even with a few hick-ups during that period.

Since the installation of the machine in June 2001, RBSA only had a few minor problems that related to limited down time.

ERSA must be complimented for the manner in which they addressed the issues that I raised during the pre-phase (investigation and ordering), pre-acceptance at ERSA and installation and commissioning. RBSA appreciates the support they received from the South African /ERSA agent - Techmet - who always succeeded in solving the issues in a professional and efficient manner.

RBSA is thanking ERSA for their „long“ professional relationship that started in 1990 when RBSA purchased an EMS 3300 wave solder machine from ERSA. As the technology advanced through the years our relationship with ERSA grew. RBSA has not only gained

the benefit of producing our world class quality products on ERSA wave-, reflow and selective solder systems, but also gained a business partner that can be relied on for assistance at all times - day or night.

Fanie Schoeman
Product Engineer
ROBERT BOSCH SOUTH AFRICA

SMT Vision Award - And the winner is ... ERSA!



The ERSASCOPE Inspection System carried off all the important industrial awards and prizes for innovation worldwide and has proved a massive success since it was put on the market in 2000. Close on its heels, ERSA is now giving a repeat performance of that success story with the IR 500 A Rework Center.

In 2002 Europe's biggest soldering systems producer once again succeeded in carrying off the SMT Vision



Award. A high-level jury at the APEX 2002 in San Diego California awarded the ERSA IR 550 A this coveted prize in the category „Rework and Repair“, and in so doing they gave

their expert seal of recognition to the product's performance levels and exceptionally innovative character. And the ERSA IR 550 A does indeed set

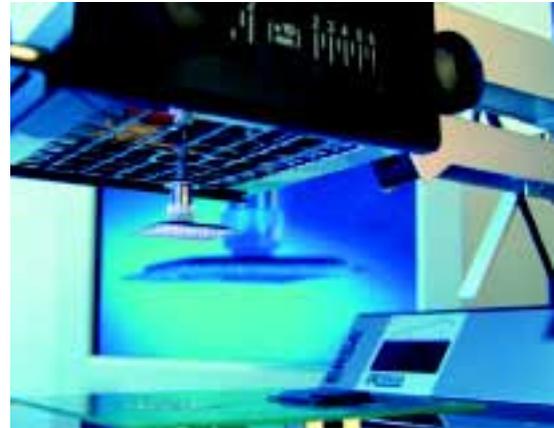
new standards, particularly in the field of BGA-rework and -repair.

In combination, the IR 550 A Rework Center and the Precision Placing System PL 550 constitute a tool fully capable of rising to any user's demands regarding performance capacity, adaptability and process-monitoring.

Assisted by the IR Soft PC software, the IR 550 A offers reproducible soldering and machine-related process documentation.

Absolute precision in the setting of the component parts is child's play, thanks to a high-resolution CCD camera with motor zoom. The automatic „Pick-'n-Place“ mechanism guarantees absolutely reliable accuracy in the placing of all high-channelled SMT component parts within a size range of 1 x 1 mm to 40 x 40 mm.

The PL 550 A is furthermore fitted out with a reflow process camera module



which facilitates visual process-monitoring during soldering, a feature used particularly on component parts with hidden soldering spots.

Familiarity with the soldering process and the ability to see how the soldering spot is created are prerequisites for consistent success in SMT-reworking. This explains why the combination of IR 550 A with RPC 550 A or of IR 550 A with PL 550 A are the ultimate in solutions for modern process monitoring in BGA/SMT-reworking.

The optimized infra-red radiation technology of the IR 550 A makes it possible for the operator to keep a comfortable distance from the machine. This in its turn enables him or her to use a high-resolution reflow-process camera integrated in the PL 550 to keep an eye on the soldering spot, even when it is hidden, during the soldering process. It is possible to measure the temperature in the immediate vicinity of the part being handled without it being touched. It is precisely these two components, that is to say, process observation and temperature measurement, which are fundamental to a successful repair operation. Exactly the right temperature is applied to the spot being soldered, and there is no danger of the component parts being over-heated.



Neopor® – much more than just a silvery-grey colour

 Neopor® is a raw material developed by BASF based on polystyrene containing a blowing agent. It is processed further to produce the silvery-grey polystyrene rigid foam widely used in the building industry.

Technologically speaking, Neopor® is a further development of white polystyrene rigid foam, the main difference between the two being the lower heat conductivity of the silvery-grey insulating material. The level of heat conductivity is influenced by the cell gas, the basic structure, the matrix of the foam and its diathermic characteristics, or permeability to thermal radiation, which until now could only be reduced in rigid foams by raising the material's bulk density. The cellular gas, the basic structure and the matrix of the two foams are essentially the same, but in the case of Neopor® the use of infra-red-absorbers or reflectors made it possible to eliminate the effect of thermal radiation to a very large extent. This in turn makes it possible to achieve the same insulating effect with considerably lower densities. It is the use of absorbers or reflectors which causes this foam to have a silvery-grey appearance.

Illustration 1: Dependence on thermal conductivity on density. Neopor® in comparison with white EPS, in accordance with DIN EN 13 163. (Source: Neo-por®, der Dämmstoff der Zukunft [Neopor, the Insulating Material of the Future] BASF p.5)

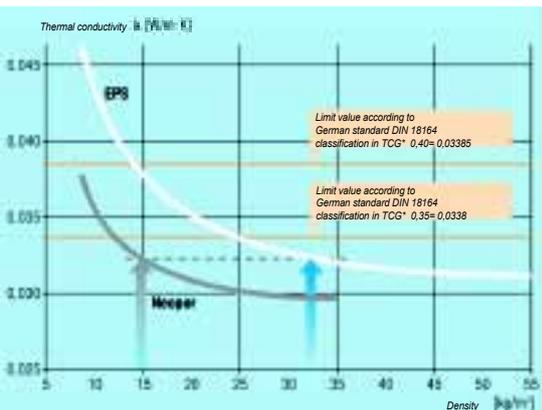


Illustration 1 shows that insulating materials in Neopor® with a density of 15 kg/m³ reach heat conductivity levels of 0.032W/m K. The same heat conductivity would in white EPS require at least 32 kg/m³ of raw material. A further point is that even with a density of 12 kg/m³ it is possible for the material to be categorized in the heat conductivity group 035 in accordance with DIN 18 164, a rating still valid in Germany. In comparison with white EPS, Neopor® is capable of achieving the same levels of insulation with only half the amount of raw material.

This excellent insulation behaviour is also reflected in the positive ecological balance drawn by Neopor®. The objective ecological and economical assessment of a given building material is made with the help of an eco-efficiency analysis which compares the damage to the environment with the cost of the material. As can be clearly seen from Illustration 2, Neopor® has a considerable advantage over polystyrene or stone fibre.

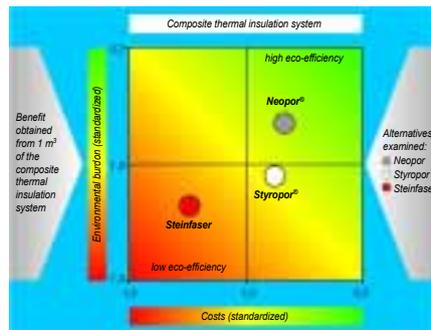
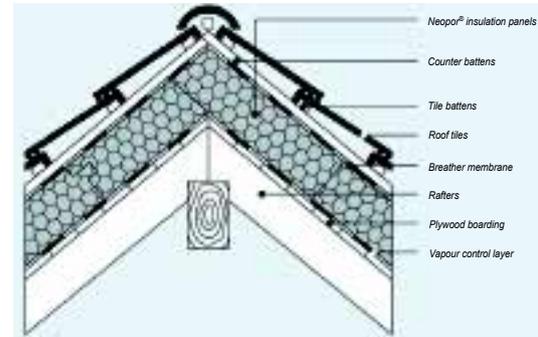
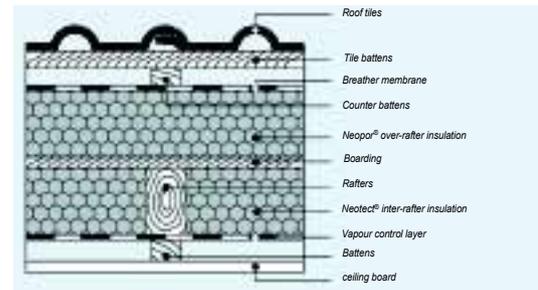


Illustration 2: Eco-efficiency analysis of heat insulating compound systems, taking the 3-litre LUWOGÉ house in the Brunck quarter of Ludwigshafen. (Source: Neopor® der Dämmstoff der Zukunft BASF p.3)

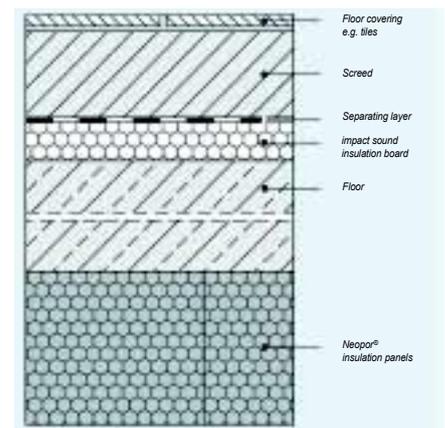
Neopor® is used for the insulation of roofs, walls and ceilings. On-rafters insulation, between-rafters insulation, insulation in the compound system (WDVS), between-walls insulation, internal insulation and cellar insulation are among the further applications of Neopor®. Even where constructional factors make it necessary to limit the thickness of the insulating layer, the use of Neopor® with its advantageous insulating capacity is an additional energy-saving factor.



Construction principle of on-rafters insulation with Neopor® insulating panels. (Source: Neopor®, der Dämmstoff der Zukunft BASF, p.6)



Neopor® on-rafters insulation, and Neotect® between-rafters insulation (Source: Neopor® der Dämmstoff der Zukunft BASF, p.7)



Subsequent installation of Neopor® heat insulation panels under the roof of an unheated cellar (Source: Neopor® der Dämmstoff der Zukunft BASF, p.14)

Neopor® foam can be produced on perfectly conventional KURTZ EPS-processing machines. Processors can thus make blocks, panels or moulded parts in Neopor® according to the requirements of the application in hand.

® registered trademark of BASF

Robot technology in block processing



 In developing ProRob, Kurtz has been responsible for **KURTZ** yet another milestone in the foam-processing industry. But what is ProRob exactly? What is the reality behind the catchword?

ProRob essentially consists of three component parts:

- An industrial robot
- Mechanical handling systems specially developed for the foam materials industry
- KURTZ software application programmes, which provide operational application programmes when combined with the individual components.

The KURTZ EPS handling systems ProRob has opened up completely

new avenues to polystyrene-processing enterprises not only as regards handling but also in connection with further stages in the development and utilization of their products. It is not just that the ProRob product series is flexible enough to be adapted for practically any handling application; it can also be used as a machining tool for edges and contours and be put into operation in the production of a variety of elements such as panels.

Allowing for certain differences corresponding to the configuration of the installation, the following are characteristic features:

- Several procedures can be carried out at once on one machine
- Automatic tool-changing ensures minimal changeover times

- Elimination of costly transport facilities
- High level of flexibility even when space is at a premium
- High through-puts
- Problem-free handling of thin panels
- No problems with left-over panels when the product is changed
- Easy feeding-in of the upper panel into the production process

The handling installation ProRob can be configured for the following tasks:

- Stacking and de-stacking of panels and packets
- Upper panel removal
- Pallet-related operations
- Machining of panel edges
- Loading and unloading of production machines
- Production of structural insulation panels for pre-fabricated houses
- Automation of handling procedures



In other industrial branches, robotics has long been a familiar feature of state-of-the-art technology. The fact that this will soon be the case in the foam-processing industry too will mean some fundamental changes in working procedures. Firms that rise to this challenge will find that they can make considerable savings. With the help of ProRob they will be able to improve their reactions to market conditions, which these days are becoming more and more dynamic in character.

Pro Rob – The True Story Action Days at Kurtz Altaussee

 In the middle of the Christmas rush an invitation landed on my desk from Altaussee regarding the action days. „Put it aside”, was my first reaction – „what’s the big deal, it’s just a new style of sheet handling.” Bringing in the new year and back at my desk, I received a call from Altaussee that intrigued me.

tain height and sheet measure, separated sheets with different strengths into organized bundles, and took 10 mm thick sheets and sorted them into bundles, which it afterwards divided up and mixed when the show was over. It then dawned on me that all of this is usually done by hand, both in my operation and in all operations I know.

tional uses to discuss. A bunch of projects spontaneously shot through my head. We went over all of the possible uses, throwing one out here and there while inspecting the gripping device and its uses. Using the automatic tool change I can definitely run my whole range of products through the cutting station.



The weather in the Alps was supposed to be beautiful, snow and sunny, and if it weren't for the new toy, well at least the view would be nice. So I accepted, and took the trip. Driving through the wonderful, snowy, winter landscapes was worth the trip alone. Next, after arrival, a group of about 20 people, developers as myself, together with the technicians from Kurtz Altaussee, sat and held a lively discussion about drawings and designs. Despite the surrounding busy atmosphere, there it was, a very normal industry robot with a gripping device. What's all this? I was greeted and the presentation began. ProRob, which is the name of this new robot handling system from Kurtz Altaussee, began its dance: it stacked bundles to a cer-

Next, the gripping device was automatically exchanged for a suction device. At this time my contact partner in Altaussee pointed out that this was only a sign of what was to come: edge processing. Can it do that too? Yes it can. It directed the sheets through tense, angled cutting wires, and the angles were correct, the tolerances in range – no cutting debris.

What possibilities!

As only two minutes had gone by, I didn't need to see anymore and didn't need a second presentation although I would watch it again. But now I can at least talk about it. Next I joined a discussion with my contact partner. I've got a lot of situa-

The technicians from Altaussee now have plenty of projects to take care of. The time just flew by.

On the drive home I thought: it was good that you weren't there, my dear competitor, the drive was worth it!

MAURITANIA

Where is Mauritania, as a matter of fact? To put it simply, on the west coast of Africa, south of Morocco and north of Senegal.



It is a country 1.03 million km² in size (roughly three times the size of the Federal Republic of Germany) with a mere 2.35 million inhabitants, of whom about 760,000 live in the capital city of Nouakchott. This city was created in the fifties' by the French colonial rulers and provided with a harbour by the Chinese. It is situated, for no apparent reason such as local mining resources or communications, a few kilometres inland from the sea and stretches into the hinterland which is practically all sandy desert.

There is no real connecting road to Mauritania's second most important town, Nouadhibou. What does exist is simply a track heading north along the beach from Nouakchott. Nouadhibou is an important harbour for iron ore, which is extracted by open-cast mining in the centre of the country and is then transported by train to the shipping harbour. These trains are up to two kilometres long and cover the 600 kms from the mines to the sea at a maximum speed of 40 km/h.

The population consists mainly of Moors, from time immemorial a nomadic people who wander with their camel herds

from one feeding ground to another. The caravans which formerly brought salt and other goods south from the Mediterranean have all but disappeared. The land is very barren and 90% of it is desert, partially sandy and partially stony desert, where agriculture is not possible. The only area where agriculture is possible is in the far south by the river named after Mauritania's southern neighbour, the river Senegal, where vegetables are grown.

Mauritania is one of the poorest countries of the world, and despite – or rather because of – the almost complete lack of organized tourism, is still capable of offering its visitors genuine hospitality. As guest of a camel-driver you will commonly find that your host will kill a lamb especially for you, and after you have spent a very cold night in his draughty corrugated iron hut, will bring you a bowl of warm camel milk when the sun comes up.

The sea off the coast of Mauritania – officially the Islamic Republic of Mauritania, but a country where religion is generally interpreted very flexibly – is thought to be one of the richest in fish in the whole world. As a result, fishers have taken to the risky business of striking out into the open sea for days on end in small boats fitted at the most with an outboard motor. On their return they sell their catch direct to their customers on the beach.

For a few years now, fish has also been exported by air to France, Saudi Arabia and even to Japan – in fish boxes produced on KURTZ machinery.

Our customer, a very quick-witted local producer, has even built his own factory for the preparation of fish dishes, which are deep-frozen and then sold for the kitchens of restaurants and the tables of private households in Europe.

Fresh fish from Lüderitz

The natural harbour of Lüderitz in south-western Namibia, formerly known as Angra Pequena, was discovered in 1487 by Bartholomeu Diaz. The town owes its present name to a businessman from Bremen by the name of Adolph Lüderitz. It was in 1883 that he bought the strip of coast land from a Hottentot in order to found a trading station there. Since the eighteenth century the harbour had been used by whale- and seal-hunters and guano-collectors. It was not long before huge diamond and tungsten deposits were discovered in the Namib Desert which stretches close by the harbour town. These deposits are still the basis of Namibia's most important industry, namely mining. Apart from Lüderitz there are only a few other isolated towns in the desert, such as the coastal towns of Swakopmund and Walvis Bay.

Once the railway link with Keetmanshop had been finished in 1908, there was no stopping the rise of the town on the wave of the diamond boom which attracted thousands of people to the desert town. But from about 1930 on the centre of the diamond industry moved south towards Oranjemund and Lüderitz lost its importance as a trading port. As early as 1909, fishing and fish processing had already



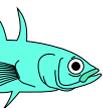
Lüderitz



been developed to provide the town with a second leg to stand on, but these were not enough to save it from decline. The fishing industry of Lüderitz today is principally devoted to cod and rock-lobster, with a processing branch for seafood in general.



Lüderitz is now experiencing something of a renaissance in the wake of the establishment of a modern diamond prospecting plant near the town, and the discovery of the „Kudu“ natural gas field to the south-west. Tourism has also played its part, as has the worldwide increase in demand for fish.



The population sank to an all-time low of under 2000 in 1970, but has now risen once again to an estimated ca. 6000.



In the region of 60,000 tons of fish are brought into the harbour of Lüderitz per year, most of which is exported. Of the exported fish, a great proportion is flown to Europe's present-day „fish harbours“, namely the airports of Madrid and Frankfurt. Naturally enough, fish boxes in EPS are used to keep the fish fresh, and until recently these had to be brought from Cape Town or Walvis Bay. These towns are some distance away, which made it very important for the Lüderitz fishing industry to consider how they might reduce their costs. Profitability studies carried out in cooperation with one of the most important fisheries in Lüderitz, Marco Fishing concluded that if the companies were to produce their own boxes, it would only be a matter of a few years before they had paid off the cost of investing in a KURTZ EPS-processing installation. Today, a variety of fish boxes are produced on a modern installation planned and delivered by KURTZ. And in the meantime a number of local fisheries have started buying their boxes from MARCOPOL, a subsidiary of Marco Fishing founded at the beginning of last year.



Spare part catalogue for shape moulding machines



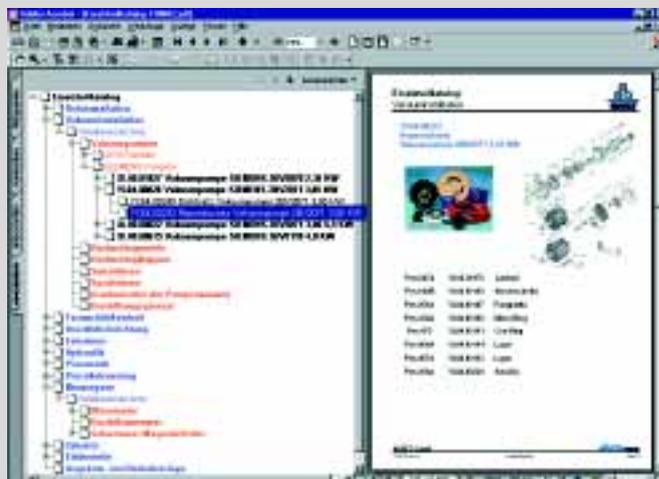
The declared goal of the project was to set up a catalogue which would enable the customer to select a given spare part without extensive background knowledge and to order the part without having to make enquiries.

The project got under way with the service department drawing up a select list of the most common spare parts. A kind of hierarchy of construction parts was established to deal with spare parts which themselves consist of further subsidiary construction units. The point of this hierarchical categorization of various spare parts is to make it easier to locate an individual part when it is itself part of a larger constructional unit. Finding a spare part is also made easier by pictures, sketches and information on typical features.

The spare part catalogue was drawn up on Adobe-Acrobat software, which means that it can be read on any computer with the help of Acrobat-Reader 5.0, itself available at no cost on the Internet. The navigation aids make it all the easier for a user to find his or her way around, with links from key words to the corresponding pages in the catalogue.

The navigator orders the items according to the machine's constructional unit, for instance pipe installation. Further items are ordered under this heading in accordance with their constructional character, for instance inter-unit valves. In the event of an item containing further subordinate parts, then these are shown by the navigator by means of a link. This means that it is clear to the customer when it is possible to order not only a given item whole, but also any one of its constituent parts.

Once the catalogue has been fully completed, it will also be made available in English and French. The current version can already be opened or downloaded in the Internet under www.kurtz.de/etk/ersatzteile



Mosbach University of Cooperative Education – Gateway to the World!

For a number of years now the Kurtz Group has, in cooperation with the Mosbach University of Cooperative Education offered training courses for engineers leading to diplomas in the specialist fields of machine construction, mechatronics, and electrical engineering, and a further line of study in managerial economics specially oriented towards industry. The latter course was introduced in Baden-Württemberg in 1974 and is currently followed by 20,000 students, a number which is constantly on the increase as a result of the benefits that can be reaped from the course. Six students from the Kurtz Group have already been trained in the specialist field of technology and one in that of managerial economics. And the Kurtz Group currently has nine students in the former field and one in the latter at the college.



Picture: Behnke-Pfuhl, BA Mosbach

One great advantage is the fact that the so-called „dual system“ makes the training course very practically orientated; according to this system, each semester is divided into two blocks, one devoted to theory at the college and one devoted to practical training at the company. The course as a whole lasts only three years, which means that students are enabled to make an earlier start on their career than would normally be the case. Another advantage is that the students are divided up into small course groups, which facilitates communication between students and teachers, many of whom also work in the

profession. The college also shows that it is in touch with the global character of today's business world by offering the students language courses and time abroad. The course is made all the more attractive for school-leavers by the fact that they are paid a monthly salary for the whole period of study by their sponsor firm.

Graduates who have seen the three-year course through to a successful end are then entitled to call themselves Diplom-Ingenieur (BA) or, in the case of the managerial economists, Diplom-Betriebswirt (BA), titles which are officially on a par with those given to graduates of university and polytechnic courses throughout Germany. And in 80% of cases, the student will be given a job by the sponsor firm.

I started my studies in machine construction at Kurtz GmbH in October 1998 after having had a short spell getting a taste of what the work is like in September. At the college, we were given a varied and stimulating schooling in the theoretical side of the subject, and the course was nothing like the monotonous series of lectures one has often heard about. We went on interesting outings to various companies and to the Hanover Trade Fair. The college is furthermore well equipped with laboratories (machines, robots, CAD/CAM etc.) and internet access. In the first four semesters we were encouraged to use our own wits to solve the problems we were presented with by having to make construction designs of our own. And in the last two semesters we had tasks such as the development of a direct-drive tool-head or the development of a testing bench for vibrations.

In my first theoretical semester at the college I was preoccupied with getting settled into my new environment, making friends and getting used to the study routine. In the semesters that followed I found that my life was much enriched by socializing with fellow-students, sporting activities offered

by the college, and the weekly student get-together at a local hostelry. The high point of the week was of course the party thrown each Thursday evening by one of the course groups at a hut in the woods. This was interrupted at the end of each theoretical semester when exams were approaching, when students suddenly found themselves under severe pressure and short of spare time.

Thanks to the great variety of departments at my sponsor firm Kurtz, the time I spent there provided me with a great opportunity to tap into a wealth of practical experience. I worked in various fields at Kurtz GmbH, including the apprentices' workshop, assembly, work preparation, construction and in the projects department. I was furthermore privileged to try my hand in the grey cast iron foundry, in model construction and at ERSA GmbH. When I asked questions I was very pleased to find that the staff were invariably very open and helpful. We were examined for our knowledge of the ground covered by the practical side of the training course in the fourth semester before graduating as Assistant Diplom-Ingenieur.

The last hurdle of the course was the submission of a piece of work of Diploma level. I had to develop a safety concept for a new generation of shape moulding machines in accordance with CE conformity requirements. I could not have asked for a higher level of cooperation and support from Kurtz employees.

After successful completion of my studies I was taken on at Kurtz as assistant to the management in Walter Kurtz's office and sent to the projects department to be given a preparation for my future activities in sales. Herr Kurtz supervised my first project which was to draw the first and long-awaited spare part catalogue for shape moulding machines which can already be viewed on the Internet under <http://www.kurtz.de/ersatzteile>.

Kurtz hosts information day on synthetic materials

In February of this year, 25 Directors, Rec-tors, and teachers from secondary schools in the region were the guests of Kurtz Holding GmbH & Co. in Wiebelbach. They were given information both about synthetic materials in general and about Kurtz's performance in the field; they were also shown around the works and received „Kuno's cool synthetics set“, an outfit to experiment with in the classroom.

„It is fact of life these days that children grow up with synthetic materials“, as Dipl.-Ing. Walter Kurtz, Partner and Managing Director of Kurtz Holding GmbH & Co., said in his speech greeting the participants. In spite of synthetic materials being a part of

everyday life, he continued, they are far from always being perceived in a positive light. This is the reason why the VKE, an association of synthetic materials producers from the chemical industry, developed „Kuno's cool synthetics set“. It contains five experiments, which in an easily understandable and rather game-like way are intended to help pupils get along better with synthetic materials. The goal of this grass-roots work is to improve the image of synthetic materials, which, as Walter Kurtz put it, „as producers of machines which process synthetic materials, we are duty-bound to do.“ We can but hope that „Kuno's cool synthetics set“ is being well-received by the schoolkids it is



aimed at and will thus have a beneficial effect on their perception of synthetic materials.

Regional Performance Panorama: The 2nd Wertheim Business Week

The Wertheim Business Week took place for the second time from May 8th to 12th, 2002. This fair provides an opportunity for enterprises of all kinds. The exhibition takes place on premises with a surface area of roughly 21,000 m² divided up into 13 halls, and extensive open-air space. Over 40,000 visitors were there to see what the 198 exhibitors had on show.

The Kurtz Group was represented with a stand of its own, with information about all the member companies. Significant emphasis was laid on the manifold trai-

ning opportunities offered by the Group, with the number of young people in training for a variety of different careers now being in excess of 90. This was a source of interest to a great number of visitors, primarily of course from the younger generation.

A range of exhibits enabled the more interested visitors to familiarize themselves with the performance levels of the individual companies.

The laser-cut exhibit presented by MBW GmbH with its precise, filigree-like contours proved an object of irresistible fascination for all who laid eyes on it.

We were constantly asked what use Kurtz cast products are eventually put to. Machine construction, with its two fields casting

machines and foam machines, was one aspect which aroused great interest and many people wanted to know what is actually produced on the machines.

There was considerable surprise when they were informed that the wheel rims of their cars were produced on a KURTZ aluminium low-pressure gravity die casting machine, and that the head-rests, sun visors and the cores of their bumpers were the products of KURTZ moulding machines. And it was news for many visitors that the ESP external insulation panels of their own homes were foamed on KURTZ blockmoulds and cut on KURTZ cutting machines.

ERSA products enjoy a high degree of familiarity in the region, which resulted in a great number of ERSA soldering product-users visiting the fair. They had high praise for the reliability and durability of these products. Many people were also avid for further information about the ERSASCOPE and soldering machines of all kinds.



Qualifications in the Kurtz Group



Qualifications at KURTZ GmbH:

Our picture shows from left to right: Trainer Siegfried Schwab, Trainer Klaus Herrmann, Mario Kaminsky, Roland Munteanu, Michael Vogel, Hakan Temiz, Andre Wolf, Sebastian Englert, Thomas Stöckl, Stefan Mahler, Trainer Frank Adam, Head of Trainings Department Jürgen Schmidt as well as the Head of the Central Department Personnel in the Kurtz Group, Jürgen Jahn.



Qualifications at ERSA GmbH:

Our picture shows from left to right: Markus Werner, Jürgen Jahn - the Head of the Central Department Personnel in the Kurtz Group, Nina Günther, Trainer Michael Burger, Alexander Trippel, Chairman of the Works Committee Stefan Kuon, Rene Gärtner, Head of the Trainings Department Jürgen Schmidt as well as Trainer Werner Grosch.

Honours at the Kurtz Group



Honours at MGM GmbH
Werner Heyne at MGM GmbH in Mannheim was honoured for 40 years on the company staff.



Honours at ERSA GmbH

The picture shows the honoured employees of ERSA GmbH. For 10 years on the company staff: Herta Lämmle, Christel Endress, Ludmilla Böspflug as well as Siglinde Werner. For 15 years on the company staff: Irene Eitel, Siegfried Fünker, Edgar Diener, Klara Bischof, Manfred Wolz, Werner Sander, Michael Burger, Barbara Hildenbrand and Günter Spielmann. For 20 years on the company staff: Heinz-Jürgen Schwarz and Meinrad Eckert. For 25 years on the company staff: Gerhard Kempf. Gerhard Motzekat has been working for ERSA for already 30 years. Also in the picture are Managing Director Rainer Kurtz as well as the Head of the Commercial Department Günther Bartschat.

Honours at KURTZ GmbH

Our picture shows from left to right: Chairman of the Works Committee Joachim Kraft, Senior Manager Otto Kurtz, Managing Director Walter Kurtz, Erwin Haas (40), Heinz Haas (25) Rasim Tursun (25), Klaus Diehm (25), Gunther Dinziol (25), Albrecht Eitel (25), Wolfgang Hardwiger (25), Alfons Ulrich (25), Niyazi Yildiz (25), Managing Director Rainer Kurtz, Managing Director Bernhard Kurtz and Managing Director Günther Bartschat (in brackets the years on the company staff).

From time to time we all need to go into the desert ...



My title is in itself an answer to a question I am often asked: What is it that drives a German such as myself to spend his whole annual quota of holiday in three successive years in a continent which many of its inhabitants abandon in the hope of a better life in western Europe? In this article I aim to tell you why, and to give you a few tips in case you feel tempted to do the same yourself.

January-February, when Germany is at its least appealing and Spring is definitely not just around the corner, is the best time to pack a Landrover with a good supply of tinned food and canisters for water and diesel and to be sure that you have no other obligations for a good time ahead. Destination: Southern Algeria – the Ténéré Desert – Niger.

The ferry trip from Genoa to Tunis takes 24 hours and is followed by 600 kms of tarred roads through Tunisia to the Algerian border. If you are lucky enough to find customs officers present at Nefta, the formalities only take a few hours and once all the important rubber-stamping, issuing of permits and filling in of forms has been done, we are free to move on.

At this stage at the latest one has begun to adapt to the African way of doing things: friendly, polite and always at a leisurely pace!

Just an hour's drive further on we reach the dunes of the Great Eastern Erg (sandy

desert), where there is no escaping the burning sunshine and a constant dusty wind.

This is where the real fun begins. Driving on the dunes, sometimes off the driving pistes, which in themselves are often kilometres wide. The fun includes shovelling your vehicle free from the sand and using metal sheets to prevent it from sinking in soft sand fields (see photo). This was something that happened regularly on the way to our first interim destination, the ancient rock paintings, up to ten thousand years old, at the Djanet oasis in one of the furthest corners of Algeria.

These paintings in earth colours can only be seen after a walk of several days through the rugged Tassili mountains. The galleries which the nomads created are open to the air and contain the extraordinary representations of animals such as the crocodile or the hippopotamus, which must have lived in the area at one time.

Before leaving for the Ténéré Desert all the available containers are filled with diesel and water, because the next oasis is seven days away. Fuel costs in Algeria amount to €350 for 6500 km (average consumption 20 litres).

A couple of years ago a guide already lead a tour to the famous petrified fish in the Ténéré Desert and this time also we managed this tour with the help of GPS (satellite navigation). We make a few more interesting prehistoric finds on the way there such as stone or flint celts, mortars and arrowheads.



One special highlight of our trip was watching the sunrise with Padre Edward on the Assekrem, a mountain of volcanic rock almost 3000 m high in the Ahaggar range. Padre Edward lives in community with one other monk and they both belong to the order founded under the inspiration of Père Charles de Foucauld. He lives in total isolation from the civilized world and is pleased when he gets visitors, particularly when they bring medicines, clothing and batteries which he passes on to impoverished Tuareg nomads. In this place of contemplation, as so often in the desert, the mind is stimulated to think deeply about life, and about things such as time. „How quickly the sun rises in Africa“, I thought „and yet how long it took for a fish to turn to stone!“

8000 km and six weeks later we are back in Germany, where the Spring doesn't seem to be any nearer, and I will close by making just two points. This article is a totally insufficient summary of an overwhelmingly rich six weeks (which needed preparations over a period of six months, of course, because you cannot just set off at the drop of a hat without having sorted out your visas, route etc.). Secondly, Africa doesn't only consist of desert, but also, for instance, of sub-tropical rain forest. That will probably be the destination of my next, but certainly not my last, journey.

**Sincerely yours,
Matthias Hartmann**



The Kurtz Group in Africa

130 Mio € turnover • 1000 employees

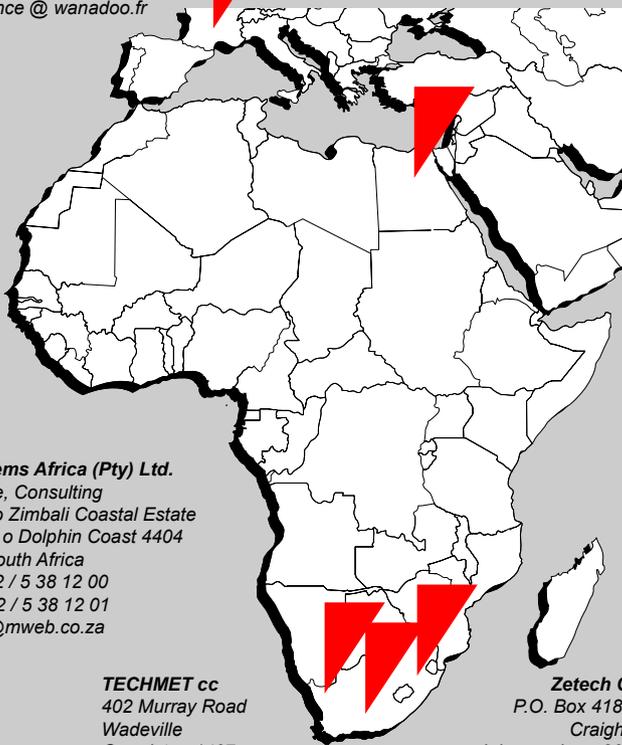
This article brings the current edition of Kurtz News full circle. „At home all over the world“ was, after all, one of the keynotes struck by the leading article.

This has been the case since 1995 in Africa, or to be more exact, South Africa. Kurtz Systems Africa (Pty) Ltd., with its seat at the Zimbali Coastal Estate 40 kms north of Durban is responsible for looking after our customers in the particle foam machines field in the whole of sub-Saharan Africa, with an emphasis on countries such as South Africa, Namibia, Ghana, Kenya, Uganda, Tanzania, Zambia and Egypt.

The needs of customers in the fields of particle foam machines and casting machines in such North African countries as Algeria, Tunisia, Morocco and Mauritania are looked after by Kurtz France S.A.R.L. with its headquarters in Taleant, France.

There are three commercial agencies spread over the whole of Africa working in the field of soldering technology.

The combination of these commercial agencies and the Kurtz Group's two sales and servicing branches results in a network which leaves no customers neglected, even on a continent as vast as Africa – or rather, especially on a continent as vast as Africa.



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