

K>MOBIL

THE KIRCHHOFF GROUP MAGAZINE



Eye-catcher on the KIRCHHOFF Automotive booth: the electric race car of the Speeding Scientists Siegen. The performance on the International Supplier Fair in Wolfsburg was a complete success!

K•MOBIL

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Review 2012

Industry and export orientation are the strong points of the economy in Germany.

Dear customers and friends of our group of companies,
Dear colleagues and employees,

The German economy has been able to weather the storms of recent years and perform well despite the recent euro debt crisis. This can mainly be attributed to our strong, export-oriented industry.

However, the economy is slowing now, which will lead to reduced investments and more restraint in taking on new hires.

The German council of economic experts has forecast economic growth of only 0.8% respectively, for this year and the coming year. For this reason, it has warned the German Federal Government that "more ambition should be shown to achieve fiscal consolidation and that an overall concept for transforming the energy landscape, reforms to the health system and to the taxation system are lacking".

Progress in terms of budget consolidation and competitive position has been made in the euro countries severely affected by the debt crisis. The crisis

policy of "money only for restructuring measures" has generally led to a willingness to implement reforms. Additional indicators, such as unit labour costs, current account balance, and export activities, highlight the fact that the realignment processes are in progress.

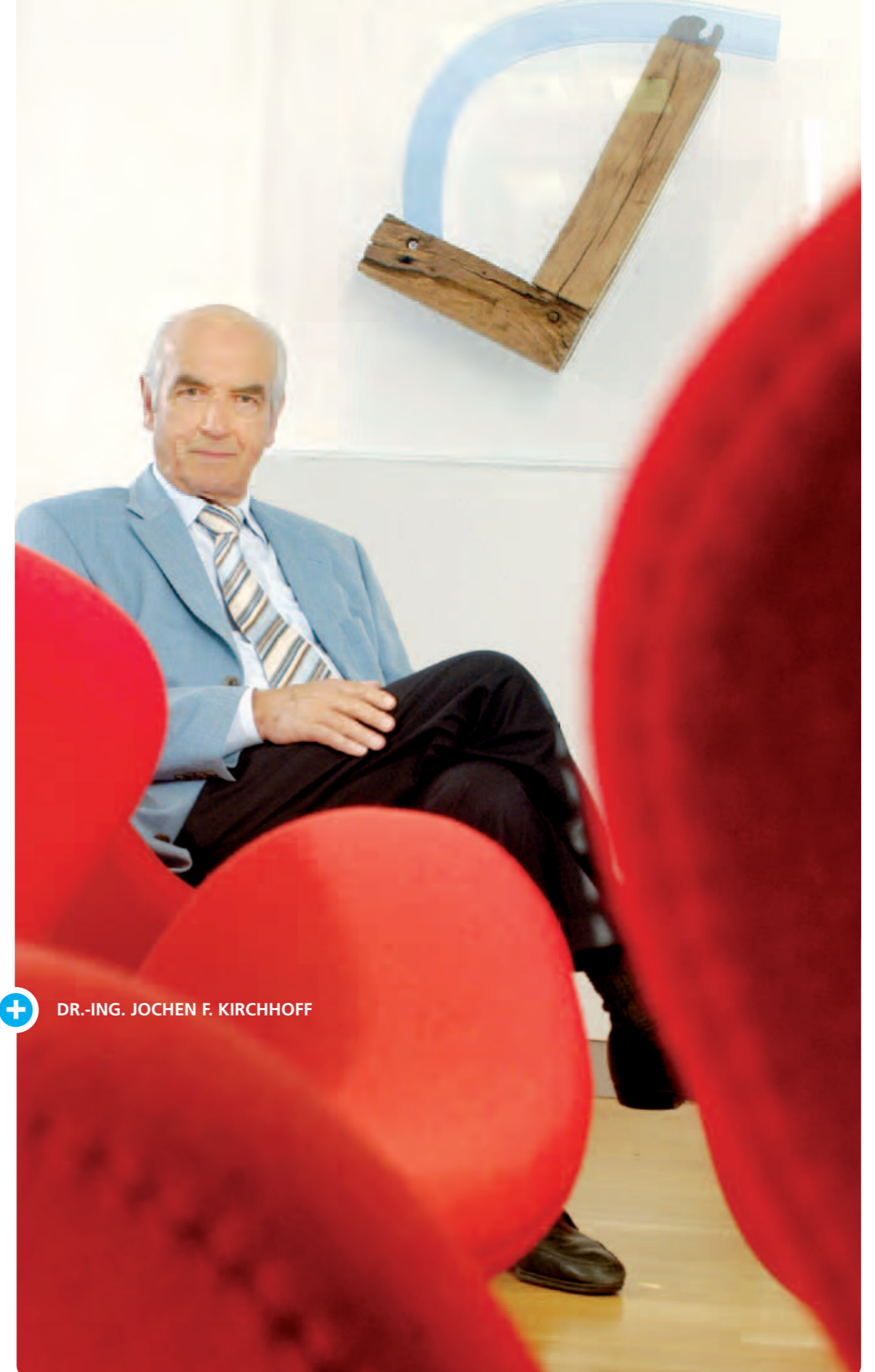
ECB President Draghi believes the budget consolidation to be "well on track". Nonetheless, this only marks the beginning and the reform zeal must be maintained. However, the recent strikes and protests—which have shown renewed intensity—against the austerity course being pursued in the debtor countries in Southern Europe, are giving cause for concern.

One particularly major challenge facing Germany is the concept of transforming the energy landscape. "Green electricity is flowing in the grid thanks to a priority feeder system with a fixed long-term, exceptionally high remuneration. Every green-electricity provider can build as many plants and supply with current as much as wanted,

they will be handsomely rewarded for the pleasure. Germany must exercise caution not to gamble away jobs and prosperity with the transformation of the energy landscape", believes the German newspaper Frankfurter Allgemeine Zeitung (FAZ) quite justifiably.

It is now time that the German Federal Government devises a plan in conjunction with the Länder, in which the expansion of green electricity is kept in line with the expansion of the grid, and subsidies for wind power and biomass are curbed to prevent any impending overcapacity.

Furthermore, it is necessary to end the prevalent German energy nationalism and harmonise the subsidisation of renewable energies across Europe. Germany's single-handed approach with planned economy measures contravenes the market economy regulations of the European single market and is interfering with the stabilisation of networks in our neighbouring countries by exporting subsidised surplus quantities.



 DR.-ING. JOCHEN F. KIRCHHOFF



The KIRCHHOFF Group: an example for the internationalization of the German economy.

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Even the effects of the presidential election on the strategic position of the United States of America are relevant to our group of companies. The suggestion of a European-American free trade zone made by the German Foreign Minister on congratulating Obama to his re-election is a clever move. If this is indeed realised, it could mean a growth spurt on both sides of the Atlantic in a time of sovereign debt crisis.

The euro debt crisis as well as the global economic slowdown have

been perceptible in the automotive industry, too. Domestic new registrations from the January until October 2012 may have only fallen by 2% in the year-on-year comparison; however, the dwindling sales particularly in the Western and Southern European markets could no longer be offset by every manufacturer through higher exports to overseas countries in America and Asia. Business in the USA remains successful for the German group brands. Sales for passenger cars and vans have increased by 20% since the begin-

ning of the year. Global order intake increased by 6% during the course of the year. Nonetheless, the business prospects across the world started to run out of steam in this time. This means that automotive companies will have to "drive by sight", adapt costs accordingly, and increase efforts in developing innovative products and processes during the coming months of 2013.

Despite waning growth figures, particularly in Europe, the **KIRCHHOFF Group** was able to improve turnover in all four company domains and once again considerably outstrip the good figures of the previous year. Total turnover for 2012 amounted to approximately EUR 1,490 million. This equates to an increase of 10% compared with 2011. Global headcount increased to 10,600 against 9,200 for the previous year.

Activities in North America have had a particularly positive impact on **KIRCHHOFF Automotive**. While Europe and Asia were able to increase turnover by 4.6% from January to October 2012, our majority holding **Van-Rob** with 12 production locations in Canada, USA, and Mexico, was able to boost the figure by more than 20% during the same time frame.

We have amplified our efforts to strengthen our competitiveness at all locations and been able to win numerous interesting new orders. Investments in new technologies and improved productions processes rose globally to EUR 90 million. Our executives and employees are particularly proud of the number of new supplier awards we received this year from our key OEMs. Presence at trade fairs has proven again to be very successful for the Automotive Group.

With its range of refuse collection trucks, lifters, and street-sweeping vehicles, **KIRCHHOFF Ecotec** was able to strengthen its market presence, particularly in the Eastern European countries of Russia and Poland, and—with the markets of Germany and Western Europe—was able to increase turnover by 5% in a fiercely contested environment. The continued implementation of the

globalisation strategy with the establishment and approval of a wholly owned subsidiary for the production of platforms for refuse collection trucks, sweepers, and lifters in Suzhou/China is very encouraging; the same goes for the establishment and approval of the 50/50 joint venture between FAUN and its Chinese partner for the assembly of platforms and lifters onto chassis frames, and subsequent sale of the complete vehicle. The new collaboration in North America with a dealer organisation from one of the main US construction machinery manufacturers is of special significance, too.

In its European production locations, FAUN and ZOELLER have made considerable headway in increasing productivity by systematically implementing the 5S strategy. Endeavours in development to improve fuel consumption efficiency, to reduce fine particulate and noise emissions continue to be a main focus.

Efforts into developing electric mobility and other alternative powertrains for municipal vehicles and lifters have been intensified, too. Consequently, FAUN is particularly pleased about being distinguished with the TOP 100 Innovator 2012 award.

KIRCHHOFF Mobility with the companies **REHA** Group Automotive in Hilden/Germany and **Jelschen** in Bad Zwischenahn/Germany, has boosted its production and the service and sales network under new management, and wishes to continue its expansion by increasing the range of products in the sector of vehicle conversions for elderly people and those with restricted mobility. The first joint trade fair appearance for the two companies at REHACARE in Düsseldorf/Germany

received an outstanding response. The company domain has now reached third place in terms of turnover within our group of companies.

In the global economic downturn, **WITTE Werkzeuge** has managed to almost maintain figures at the previous year's level despite the euro debt crisis. A new partner with many years of experience and headquartered in Harlow/London has taken over the role of general distributor for hand tools in the United Kingdom.

My family and our employees will face these good perspectives relating to all business segments with our continued commitment and great pleasure. We would like to thank our esteemed customers for their understanding and support, and our employees for their loyalty and dedication.

My sons and I would like to wish you and your families a merry Christmas, a relaxing time during the festive period, and all the best—particularly good health—for 2013.

A cordial good luck!

Yours,

Dr.-Ing. Jochen F. Kirchhoff

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Series: from research and development

This year again, the KIRCHHOFF Group can look back on many new developments and research projects. One example originated from FAUN, who developed a new energy-saving and environmentally friendly drive concept fitted in the first waste collection vehicle with diesel-electric hybrid drive. WITTE Tools, the screwdriving tool specialist, devised a new compact bit box, the "Ratchdrive", in which a powerful ratchet mechanism is integrated. Furthermore, KIRCHHOFF Mobility as the umbrella brand for the companies REHA and Jelschen presented no less than three new specially adapted vehicles for people with limited mobility at the REHACARE trade fair in Düsseldorf/Germany. In this edition, we would like to focus on the latest findings from the material research department at KIRCHHOFF Automotive.

Organic sheet—a material for light-weight automotive construction

Apart from the optimisation of the powertrain, lightweight construction play a crucial role. This is because lighter vehicles consume less fuel and cause fewer CO₂ emissions. And it is

not just the environment that benefits from this. Vehicle manufacturers who exceed EU regulations must expect to face penalties in the future.

Apart from high-strength and ultra-high-strength steels and light alloys using metals such as aluminium or

magnesium, continuous fibre-reinforced plastics (FRP) with their excellent mechanical properties in relation to density are increasingly being utilised.

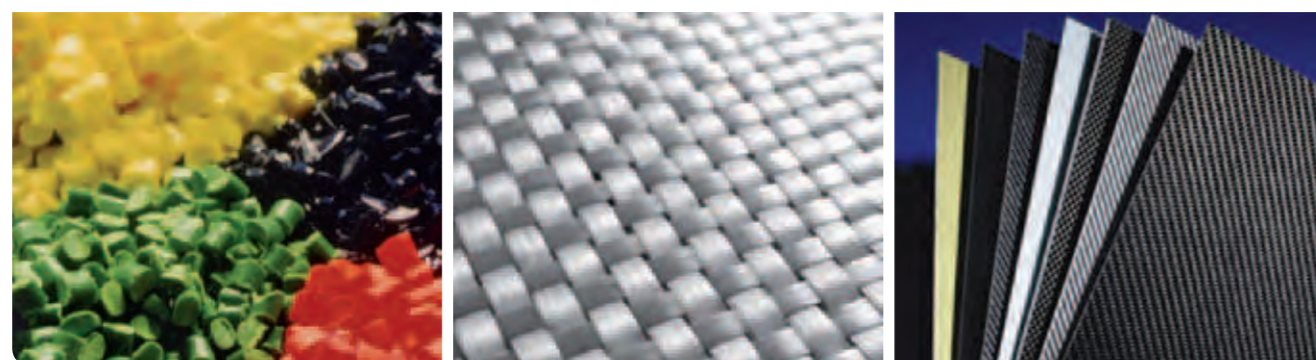


Fig.1: Organic sheet structure: Thermoplastic material + fibre fabrics = organic sheet

What are organic sheets?

One variant of FRP are continuous fibre-reinforced thermoplastic materials. The term "organic sheet" for the semi-finished product is derived from the organic matrix and its property of being formed in a manner akin to sheet metal. Various thermoplastic

materials are used—polypropylene (PP), as well as technical thermoplastic materials such as polyamide (PA), or temperature-resistant materials such as polyphenylene sulphide (PPS), are predominantly used in the automotive industry. Various types of fabrics or unidirectional bonded composites are embedded in this matrix. These

usually consist of glass, as well as carbon, aramid, or natural fibres. Typically, the fibres account for 50% of the mix. The semi-finished product arising from this process is completely consolidated and can be directly processed by the user.

Material properties

Due to the relative distribution of the fibres, organic sheets have a heavily anisotropic behaviour. This means that the material's properties vary considerably depending on direction. The standard fabric ratio is 4:1—i.e. 80% of the fibres are woven in one direction, 20% in the other direction—or 1:1.

As part of the definition of material properties, various organic sheets available on the market were analysed using experimental testing while exposed to single- and multi-axial loads, and the material properties were validated as a function of the loading angle. These characteristic values obtained from the process are used as input parameters for the existing FEA-material cards for composite material models.

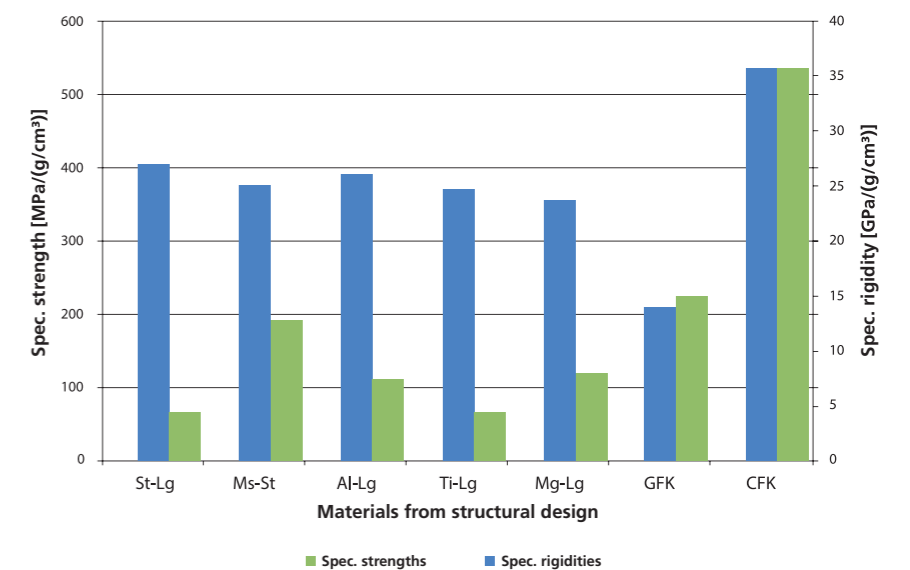


Fig.2: Comparison of the density-specific mechanical properties in structural materials

Fig.3: Material behaviour as a function of fibre direction

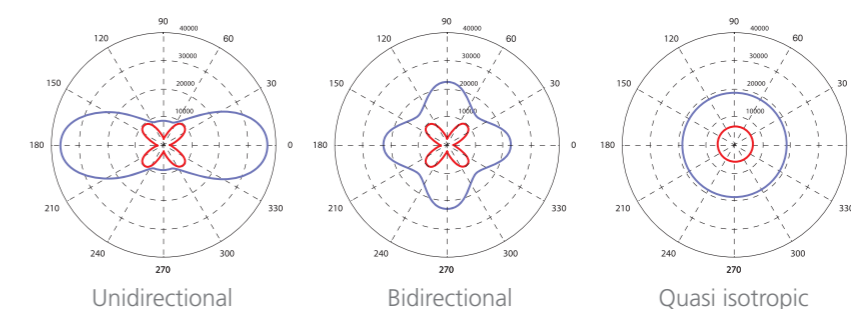
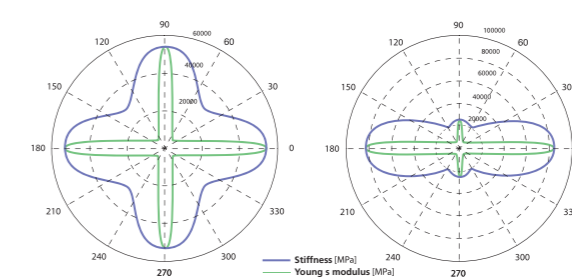


Fig.4: Mechanical properties according to the classical lamination theory



Design concepts

The use of analytical approaches has made it possible to assess the suitability of organic sheets for various component geometries using the material characteristics acquired.

Thanks to this fundamental testing, a high level of rigidity can be achieved with reduced material for layered and shell-like components. In this context, a layered demonstrator component modelled on an existing steel seat shell was analysed. Under normal circumstances, it is not advisable to substitute metallic materials with fibre-reinforced plastics. However, as the objective was to integrate the GFR component in an existing steel structure, all of the seat shell's mounting surfaces were left unchanged and the remaining geometry was adapted in terms of design and production taking the existing installation space into consideration.

Forming of organic sheet

Following the analytical and theoretical observations, prototypes were manufactured by thermoforming at KIRCHHOFF Automotive's Tec Centre in Attendorn.

First, the organic sheet is melted, as the material is stiff and brittle in its condition at time of supply. The heating temperature required depends on the respective matrix available. Once heated, the organic sheet is fed as quickly as possible into a mould and formed. Hence, this is a hot forming process similar to press hardening.

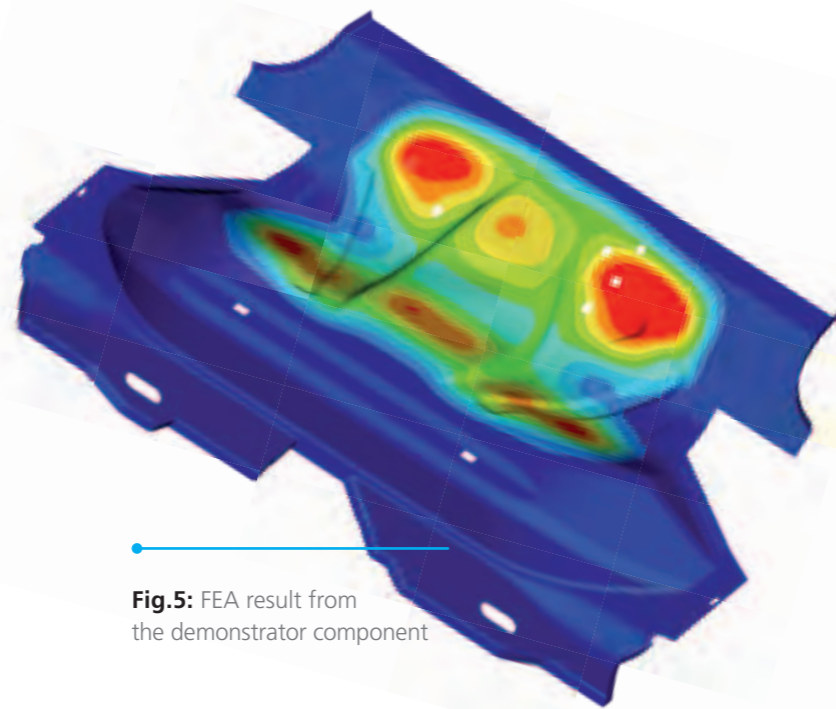


Fig.5: FEA result from the demonstrator component

Fig.6: Trimming of finished component was made by 3D laser trimming. Demonstrator component after thermoforming and 3D laser trimming.

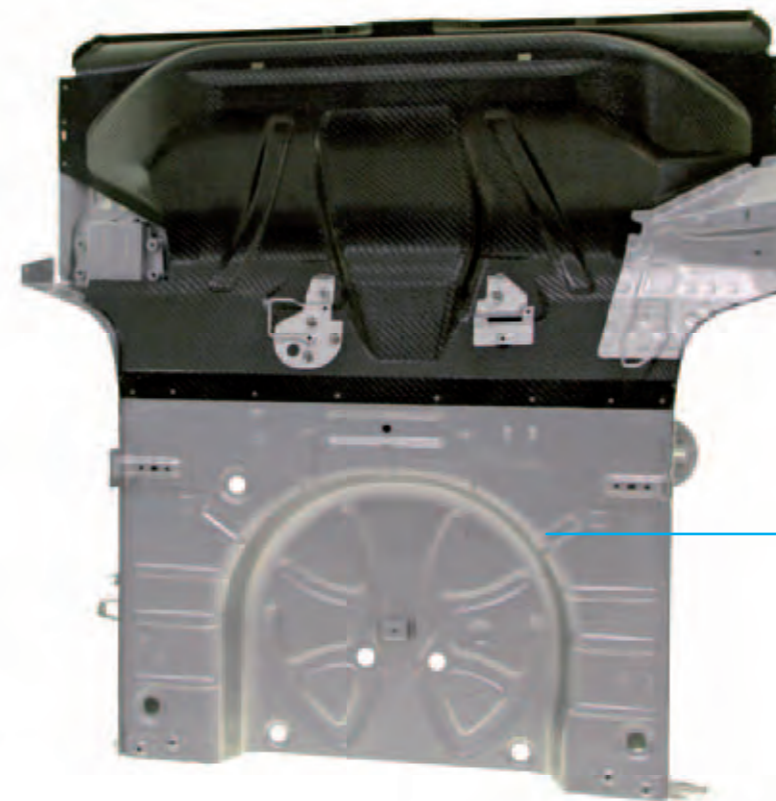
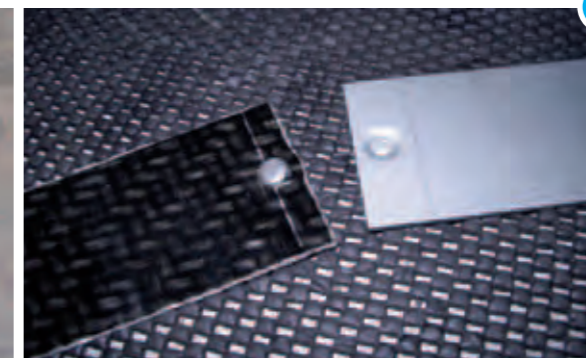


Fig.8: Joined demonstrator component with steel structure

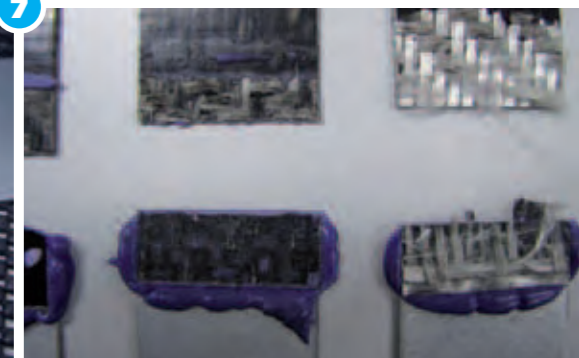
Fig.7: Bonded hybrid samples with substrate failure (right) and hybrid sample with semi-hollow punch rivet shorn off (left)



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Info

Weight comparison of the seat pan—steel vs. organic sheet

It was possible to reduce the weight of the seat shell by 40% by using glass-fibre-reinforced organic sheet with comparable mechanical properties to the series production equivalent made of steel.

Joining technologies

Joining technology is particularly critical when applied to hybrid designs. Particularly in the case of metal/plastic combinations, the use of adhesive bonding in combination with mechanical joining processes, such as semi-hollow punch rivets, blind rivets, RIVTAC technology, etc. becomes more and more common.

Fundamental analyses initially involved the practicality of several selected adhesives as well as a variety of join-

ing elements and processes, and the subsequent construction of the demonstrator component of a hybrid underbody, as seen in Figure 8.

Both the fundamental analytical investigations and the actual development of the hybrid structure indicate the considerable lightweight construction potential fibre-reinforced plastics. Whether these materials will be increasingly used in the body in the future, depends especially on the associated costs. The feasibility of using such materials in series, hybrid

lightweight structures depends on two factors: fibre-reinforced plastics being available at density-specific, competitive prices, and cost-efficient series production processes.

But even then, the principle for hybrid solutions will remain applicable: the right material in the right location!

Rolf Schwarzer, Stefan Szabo, Christoph Wagener

Dr. Kirchhoff Foundation

Once again, the Dr. Kirchhoff Foundation has been involved in a large number of activities for the region in 2012. Overall EUR 30,000 was gifted to activities, and various charitable projects in the areas of education, culture, sports, and social causes were supported in the long run.



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1. ERG Iserlohn

The ladies' team was first established in 2011 and has been incredibly successful. In the German national roller hockey league, the young team is currently unbeaten in 12 matches and could win this year the German Championship and Cup.

2. Circus project at Bleichstraße primary school

An educational circus project, uncoupled from the context of school, to increase the sense of self-worth in every child. The urban primary school was transformed into a circus for one week, with teachers, parents, and pupils being the artists and stars of the ring.

3. Handball district Iserlohn-Arnsberg/Germany

Fifty children aged between 11 and 14 spent one week at a training camp on the island of Borkum/Germany together with the district team. An unforgettable event for everyone involved.

Safeguarding the Iserlohn European volunteer service in 2012

This is a project for teenagers and young adults, which enables them to undertake voluntary work abroad thanks to a so-called dispatch platform. The European volunteer service has been available in Iserlohn for three years now. During this time, much has been achieved for the project's ongoing development.

4. Classical Guitar Festival/culture symposium M

Meanwhile this event is known as one of the most famous and largest symposiums in this vein in Europe. For the 21st time in a row more than 300 participants from 49 countries in Europe, Asia as well as North- and South America came from August 12th to 19th, 2012, to Iserlohn and Schwerte in Germany. More than 4.500 visitors enjoyed the vespertine concerts.

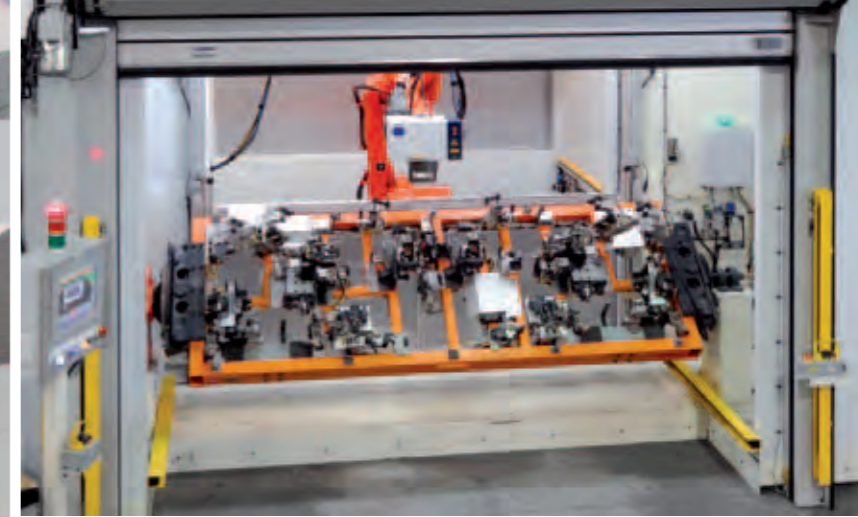
5. With the Bach cantatas

"Wachet! Betet! Betet! Wachet!" (Watch! Pray! Pray! Watch!), "Herz und Mund und Tat und Leben" (Heart and Mouth and Deed and Life), and "Erschallet, ihr Lieder" (Resound, Ye Songs), the Märkische Motettenkreis choir conducted by Dr. Wolfgang Besler entertained listeners in the fully packed Johanneskirche church in Iserlohn to mark the 85th birthday of Dr.-Ing. Jochen F. Kirchhoff.

Chameleon Caritas Group, Iserlohn

Once again in 2012, we supported the drop-in centre in Iserlohn for children and young people living in families afflicted by addiction.

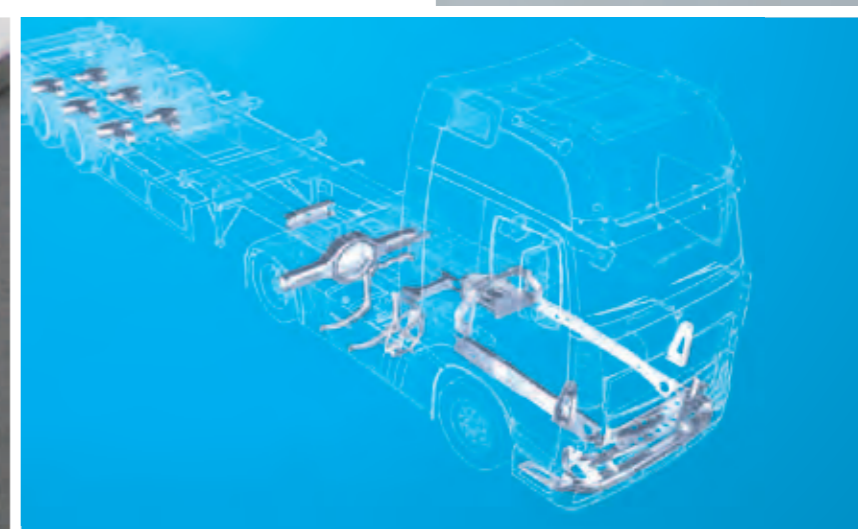
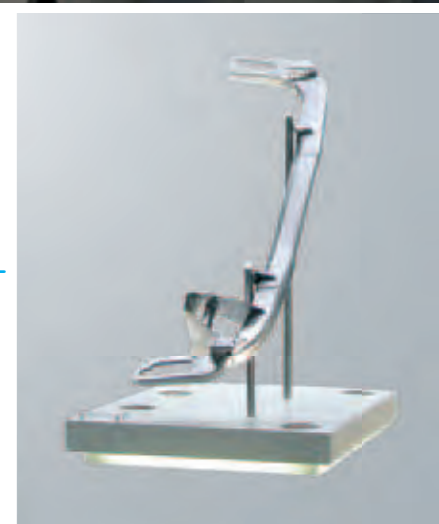
Kerstin Garmatter



KIRCHHOFF
AUTOMOTIVE

Innovations.Worldwide.

14-59



We will not lose confidence

Despite a harsh wind blowing through the automotive industry, the global market for passenger cars is still growing.

The global market grew by 6% in 2011, 4% in 2012, and will grow by 2% next year too, although we must prepare ourselves for unprecedented volatility in market trends. While America and Asia continue to enjoy vigorous growth, we are seeing difficulties in the compact car segment, especially in Western Europe. This is linked to the lack of confidence in Europe's economic stability, in particular to the turbulent financial markets here and to the declining industrial added value in most European Union countries. The sole exceptions thus far are Germany and its neighbouring Central Eastern European countries. The only way to calm the financial markets is by implementing structural reforms so as to decrease unit labour costs as an expression of competitiveness. In order to increase industrial added value again as a stepping stone for growth in the countries, the Vice President and Industry Commissioner of the EU Commission, Antonio Tajani, reformulated the objectives of the industrial policy in October. The industrial share should increase from currently 16% to 20% again.

In order to achieve this, however, the trend towards deindustrialisation must be reversed and clear priority given to industrial growth ahead of climate and consumer protection objectives. The sustainable, sparing use of resources in the development and production of environmentally friendly products, renewable energy, network expansion, increased use of secondary raw materials thanks to higher rates of recycling,

and new automotive, aircraft, and medical technologies ensure success on the global markets.

As suppliers, our future growth will rely on our unique ability to generate and implement innovative performance combined with excellent processes and products. We will only become more able to weather critical phases than others by means of a strong foundation on industrial added value; this will underpin our prosperity.

We must continue to improve productivity within the KIRCHHOFF Companies. We provide outstanding solutions for our customers with innovations in the field of lightweight automotive construction in particular and with good delivery and service quality. We are learning to improve the culture of responsibility and performance thanks to numerous training activities and transparent communication.

Arndt G. Kirchhoff



left: Awards for the best. VW Group Award 2012 award ceremony in Copenhagen, from left to right: Dr. Francisco Javier Garcia Sanz, Arndt G. Kirchhoff, Prof. Dr. Martin Winterkorn, right: Only eighteen of over 30,000 Volkswagen Group suppliers were distinguished as premium partners with the VW Group Award 2012

Among the top 18 of 30,000

With the VW Group Award, the Volkswagen Group honours KIRCHHOFF Automotive as a premium partner for the first time.

KIRCHHOFF Automotive was one of only eighteen companies in the world to receive the VW Group Award 2012.

Each year, the Volkswagen Group honours the best of its 30,000 suppliers with the distinction of premium partner for their innovative strength, product quality, development expertise, and reliable project management.

Managing partner Arndt G. Kirchhoff was presented with this year's VW Group Award by VW Chief Executive Officer, Prof. Dr. Martin Winterkorn in Copenhagen. Speaking about the

award, Winterkorn stressed, "As one of our most important business partners, it is an honour for us to give you the Volkswagen Group Award 2012. We would like to use this distinction to pay tribute to your company's exceptional performance, which stands out thanks to outstanding reliability and a lasting partnership with Volkswagen AG."

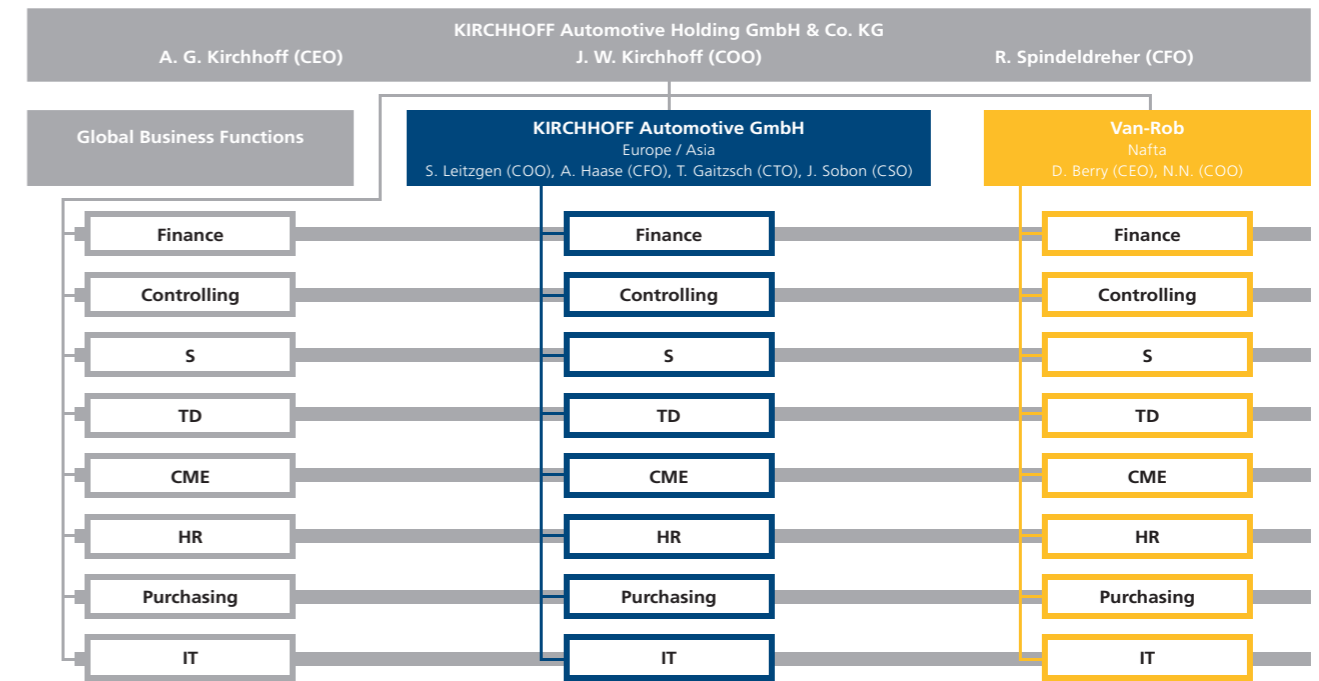
The VW Group particularly appreciates the wholehearted, successful commitment to new technologies, such as hot forming as well as KIRCHHOFF Automotive's global presence. These factors help to ensure that the high quality requirements of the VW Group

continue to be fulfilled worldwide in the future. With all its brands, the VW Group is one of the most important and largest automobile manufacturers in the world, and is thus a significant growth customer for our Company. Winning this award is therefore particularly important for the future and for the development of KIRCHHOFF Automotive with Volkswagen.

Dr. Thorsten Gaitzsch



J. Wolfgang Kirchhoff and Arndt G. Kirchhoff during the interview in Aurora, Toronto/Canada



Changed management and organisational structures

On 1 January 2013, the organisational structure of the Executive Board of KIRCHHOFF Automotive will change. In addition, the distribution of tasks and responsibilities between the headquarters in Germany and the individual locations in Europe and Asia will be restructured.

Besides their tasks in the KIRCHHOFF Group, shareholders Arndt G. Kirchhoff und J. Wolfgang Kirchhoff will concentrate more and more on the overall strategy of KIRCHHOFF Automotive und Van-Rob. Particular emphasis will be placed on the management of KIRCHHOFF Automotive Holding and the steering committee for the entire KIRCHHOFF Automotive and Van-Rob Company, the GET (Global Executive Team). A newly formed Executive Board will take over the operational business of KIRCHHOFF Automotive:

Andreas Haase (Chief Financial Officer), Dr. Thorsten Gaitzsch (Chief Technology Officer), Stefan Leitzgen

(Chief Operating Officer) und Janusz S6bon (Chief Strategy Officer). The spokesman for the Executive Board will be Stefan Leitzgen. The new Executive Board will be responsible for all KIRCHHOFF Automotive departments in Europe and Asia.

Questions to Arndt G. and Wolfgang Kirchhoff:

A. Heine: What benefits do you anticipate from the changes to the management structures?

A. G. Kirchhoff: Well, whenever a company grows, as we have been doing over the past twenty years, adjustments must continually be made in

order to control the complexity of corporate development. This is achieved by means of organisational changes, where departments and also organisational units are constantly streamlined. We now have a global presence and must adapt so that we do not make our daily work too complicated.

A. Heine: By doing this, will the organisational structure of KIRCHHOFF Automotive have definitively adapted to its role as a global player, or will there be further changes in the future?

J. W. Kirchhoff: No, the process is not complete. For the time being, we have given ourselves a global structure in keeping with the matrix organisation

of KIRCHHOFF Automotive, which has thus far been successful. In the future, we will envisage additional central functions so as to achieve global co-ordination and standardisation wherever it is needed. In principle the new structure is different in that we are now more flexible both locally and in the regions.

A. Heine: Why do tasks and responsibilities have to be realigned between the headquarters in Germany and the foreign locations?

A. G. Kirchhoff: When a company grows in different countries and consequently in different cultures too, then it is all the more necessary not to take away people's responsibility if possible, but rather to try to give them more responsibility. Indeed, as a family-owned Company it is typical for us to have confidence in our colleagues and employees. And this is what we are now doing in every country. In addition, we hand over responsibility to individuals who are closest to what has to be done, namely in the plants, in the countries, or even in a customer base. Our objective is to assign more responsibility to the region, to the countries, to the local company.

A. Heine: Can you give an example of how this type of realignment would look?

J. W. Kirchhoff: The introduction of the central manufacturing engineering function will definitely be something new in America. It is basically the industrialisation of processes. For years, it has been put into practice very successfully by our team in Germany, and subsequently implemented in Europe and Asia. As a result, we are achieving the required productivity significantly faster with new ramp-ups, and new processes or commissioning new machines pose fewer surprises for us. Currently, things are still organised on a more local basis in the plants here in North America, and therefore with varying degrees of success. Thanks to a central organisation in North America, a standardised process and defined workflow can be ensured, and

capacities can be balanced despite the varying numbers of ramp-ups each year. The introduction of central manufacturing engineering in North America will thus be helpful, particularly for demanding new projects.

The interview was performed by Andreas Heine, Director Communication & Marketing.



New Executive Board of KIRCHHOFF Automotive (from left to right): Stefan Leitzgen (Chief Operating Officer and spokesman for the Executive Board), Andreas Haase (Chief Financial Officer), Dr. Thorsten Gaitzsch (Chief Technology Officer) and JANUSZ S6bon (Chief Strategy Officer)



+ DR. THORSTEN GAITZSCH

Agenda 2020

— The challenges of the years ahead require a sustainable strategy with long-lasting effectiveness—Interview with Dr. Thorsten Gaitzsch.

Agenda 2020. Under this heading, KIRCHHOFF Automotive is currently developing a comprehensive strategy with which the Company can adapt to the challenges of the coming years in the best possible way.

From sales and technical development through to human resources, all departments within the Company will be involved. Initially, a workshop with the shareholders and KIRCHHOFF Automotive's Executive Board took place. This is where the individual key topics were established; these are now being developed in conjunction with the executives of the various departments

ABOUT THE PERSON

Dr. Thorsten Gaitzsch has been Managing Director of KIRCHHOFF Automotive Deutschland GmbH and Executive Vice President Sales & Technical Development of KIRCHHOFF Automotive GmbH since November 2008.

into a comprehensive, sustainable strategy. Dr. Thorsten Gaitzsch is Managing Director Sales and Technical Development at KIRCHHOFF Automotive and is organising the strategy process.

A. Heine: Agenda 2020. Did this agenda originate from the fear of an impending economic crisis? Does this form the backdrop?

Dr. T. Gaitzsch: I believe that it would be utterly wrong to talk about an economic crisis at the moment. In my opinion, the current situation, particularly in southern Europe, has less to do with a crisis and much more to do with market volatility and therefore with market fluctuation. This condition will shape our industry for the next five, ten, or even fifteen years. It applies not only to end-consumer demand for vehicles, but also, for example, to the field of vehicle design. With Agenda 2020 we will adapt in a targeted and timely manner to these changes.

A. Heine: At the moment, our main field of activity remains steel. Will this

material continue to be sustainable in the future?

Dr. T. Gaitzsch: In my opinion, steel will remain the most important material for the foreseeable future, particularly in relation to high-volume vehicles. Naturally, we are aware of the discussion about weight and CO₂ reduction, which will also have a major influence on the development of new vehicles in the future. Certainly, the required reduction in weight will only be realised in the long term when alternative materials will become used. This is why I believe that hybrid structures will be more widely used in the future, i.e. steel-based combinations with other materials, such as aluminium, plastics, and of course, glass fibre or carbon fibre reinforced plastics.

A. Heine: One of the items in Agenda 2020 concerns our customers. Why do changes need to be made in this respect?

Dr. T. Gaitzsch: One of our strengths during the 2008/2009 crisis was the

fact that we were already quite diversified with regard to brands and products. However, we know that this is another area with room for improvement, which is why we are now concentrating on analysing our customers' presence and scope of activities in the global market; we then want to evaluate the extent of our operations with them—with whom, where, and how extensively we collaborate. This is where we can identify one or the other area in which we can become even stronger.

A. Heine: Agenda 2020 is to have an impact on the entire Company. What does this mean for our employees?

Dr. T. Gaitzsch: Our employees are the basis for our success. Due to demographic development, it is, however, increasingly difficult to find qualified employees. However, I am sure that we will overcome this situation thanks to the various programmes, which we have already implemented, such as "Learn to Lead" for our managers, as well as many other programmes. This is because we will need to look after new employees much better than before, as it is the only way that we will be able to recruit the best employees for our Company.

A. Heine: At the end of the day, Agenda 2020 should be driven by all employees. How can we go about it?

Dr. T. Gaitzsch: Agenda 2020, and thus a strategy for the next eight years, cannot be an instrument which is only driven by shareholders or the Executive Board; it must be lived, so to speak, by the entire Company. I therefore feel it is completely natural and obvious for everyone to work together on this topic, so that everyone is committed to all the targets arising from

Agenda 2020—all plants, all departments, and in the end all employees.

A. Heine: What are the markets in which KIRCHHOFF Automotive will operate in 2020?

Dr. T. Gaitzsch: That is a difficult question. At the moment we have numerous options. Fortunately our customers require us at many locations worldwide, which is of course to our credit, and which once again highlights our significance on the global market. At the moment, though, it is not really possible to say where we will ultimately be present in 2020. I can only perhaps say that if, from our present perspective, we are considering some locations in concrete terms, these would more likely include projects in Brazil and Russia than in India or Thailand.

A. Heine: Will the importance of what I would term "old" locations in Europe suffer as a result of this development?

Dr. T. Gaitzsch: Absolutely not. In my opinion, new locations may even contribute to the capacity utilization of established locations. Overall, the success of our Company

is based on strong plants, such as those in Germany and Poland, and this will continue to be the case in the future. This is where we achieve the financial potential to develop other locations.

A. Heine: Will Agenda 2020 have a positive impact on really small locations such as Spain or Ireland? Or might these locations be disconnected from the general development of the whole Company on account of their size.

Dr. T. Gaitzsch: I don't see this as a risk. Agenda 2020 will also provide new ideas in relation to how we can

be more supportive to smaller locations such as Spain and Ireland. If customer-related fluctuations occur at these sites, there are, for example, considerations about transferring to such locations certain production ranges, which we currently manufacture at other Group locations or which we purchase from external suppliers.

A. Heine: Imagine that it is now 2020. What is the status of KIRCHHOFF Automotive?

Dr. T. Gaitzsch: On the one hand we will have continued to establish ourselves as one of the large global suppliers. I am sure that the gap to our large competitors has shrunk, and that we have grown more strongly than our competition. On the other hand I believe that we have further expanded our development know-how, in particular towards becoming a systems developer and systems supplier. And last but not least, I believe that our entire business is spread more evenly

across our large customer base, with a distinctly more harmonious customer share.

A. Heine: Dr. Gaitzsch, many thanks for the interview.

The interview was performed by Andreas Heine, Director Communication and Marketing.



Experience more, understand more

KIRCHHOFF Automotive continues to expand its internal corporate communication.

More information for everyone at the same time. This is the objective of the new internal communication. Regardless of where the around 8,000 employees at KIRCHHOFF Automotive are working, whether in Germany, Canada, or China; independent of whether they are working in man-

agement or on the welding machine, from December, all employees will be informed about the latest Company developments at the same time. The new edition of the K>NEWS employee magazine will be the first new medium. In the future, it will be sent four times a year to all

employees. Its content is international. One section of the magazine reports on the developments and goals of the entire Company and contains interesting articles from all locations across the world. The second section deals in an authentic way with the particularities of the respective

country. This is because the writers for the relevant location section all come from the country in which the section appears. Overall, there will be eleven different location sections, so that all employees can learn about items of importance for their plants. Although English is our corporate language across all levels at every location, K>NEWS will, however, appear throughout in the relevant national language to enable better understanding.

"We are particularly pleased that we have been able to combine local and international information in one employee magazine. To do this, we put together a fantastic team of colleagues from all the countries in which we operate. The first joint workshop in Germany held in November

was not just very successful, but this common event for our international Company really helped us form a bond, and we all had great fun, too."

In the future, Andreas Heine and his four colleagues will act as the hub for international corporate information. Colleagues located in the countries will write for their location using a predefined layout and send their articles to Germany. The articles are combined with information from the headquarters and from the Executive Board, then return to the individual locations as a global magazine, where, translated into the various languages, it will be distributed to all employees.

From 2013/14, the corporate communication will then be supplemented by

additional media. Videos will also be available of, for example, trade fairs, new machines, or country-specific family celebrations for employees. It will be possible to click on these videos in the new intranet or to view them on new large screens in the production department. In order to achieve this, a new global intranet will be created, which will start off as a pilot project in Germany in 2013 and will thereafter be gradually set up and installed in all locations. All plants, in turn, will then be equipped with large information screens

Andreas Heine



left: participants of international communication workshop for internal communication; centre: our photographs from two continents from left to right: Eduardo Cay (Spain), Veronica Gao (China), Aneta Furgal (Poland); right: homepage of the new KIRCHHOFF Automotive intranet

IZB 2012: International Suppliers Fair breaks all records

The International Suppliers Fair (IZB) in Wolfsburg/Germany, which was held on 10–12 October 2012, is regarded as Europe’s leading trade fair for the automotive supply industry. This year’s edition exceeded all expectations with 776 exhibitors and 49,000 professional visitors and was a complete success for KIRCHHOFF Automotive, too, after six years of absence.

WE.MOVE.FUTURE. True to this motto, the international development supplier presented its product innovations and technologies for the automotive lightweight construction of tomorrow. Hybrid structures made of metal-plastic and steel-aluminium composites attracted considerable attention from the numerous visitors. Other core competencies such as research & development as well as cold and hot forming were explained using easy-to-under-

stand product samples. “This is hands-on technology”, summed up one of the visitors.

However, the new electrically powered S3-12e racing car, developed by the student team of Speeding Scientists Siegen/Germany with the support of KIRCHHOFF Automotive proved to be an eye-catcher and an attraction for the visitors.

High-calibre delegations from business, politics, and trade association attended the trade fair. Europe’s leading trade fair for the automotive supplier industry came to a close with these positive results. “After 2010, the significance of the exhibited products and international character of the exhibitors and visitors increased considerably this year”, summarised Thomas Krause, Member of the Management Board at Wolfsburg AG



An eye-catcher on the KIRCHHOFF Automotive booth: the electrically powered S3-12e racing car; proudly presented by Arndt G. Kirchhoff, CEO KIRCHHOFF Automotive, and Götz Poenaru, team member of the student team Speeding Scientists Siegen/Germany.



Left: The KIRCHHOFF Automotive stand on the International Suppliers Fair; right: Arndt G. Kirchhoff (on the left) shares his happiness about the VW Group Award with Jens Wenzlau, Head of Metal Shell Moulds Procurement and Chassis Components at Volkswagen.



in his review of the trade fair, and thus highlighted the great proportion of decision-makers from across the world who were encountered at supplier stands or as visitors.

This was also the case at the KIRCHHOFF Automotive stand, where contacts to high-ranking representatives from technology and procurement of customers such as VW, Audi, Skoda, Porsche, und VW Com-

mercial Vehicles were cultivated or re-established. This included Jens Wenzlau, Head of Metal Procurement at Volkswagen, who was welcomed by Arndt G. Kirchhoff, and showed great interest in the Company’s innovations and range of products.

Dr. Thomas Steinhaus, Director Sales Europe, summarised, “After our experience in 2006, we approached this trade fair with a certain cautious-

ness and we have been very positively surprised. The basis for a continued successful co-operation with the VW Group has been further strengthened by our presence at this year’s IZB, and promises to continue growing in the future.”

The date for the next IZB in autumn 2014 has been duly noted.

Dr. Thomas Steinhaus

This is how it might look like, the new Post minivan



Premiered at the IAA Commercial Vehicles in Hanover/Germany



KIRCHHOFF Automotive involved in the development of an electric van.

An electrically powered minivan was one of 350 premieres at the IAA Commercial Vehicles in Hanover. A premiere not to be missed: it has a loading volume of approximately four cubic metres with a top speed of 85 km/h, and the electric drive has a range of 120 km.

Furthermore, it looks just like the big brother of StreetScooter, the electric car that was rapturously welcomed at its launch in 2011 at the IAA in Frankfurt am Main/Germany.

The two-seater van was developed jointly by research and industry partners on the basis of the StreetScooter, and is primarily intended as an urban delivery vehicle. After collaborating on the StreetScooter electric car project, KIRCHHOFF Automotive is also involved in the development of this prototype.

The main benefits of this model can be found in its ergonomically perfected and optimised equipment: an extended wheelbase and power output of 30/45 kW—generated from a lithium-ion battery and an asynchronous motor—ensure the vehicle is a genuine “urban delivery vehicle”. Its particular features make the vehicle an interesting prospect for energy suppliers, car rental companies, car-sharing operators, tradesmen and service providers alike. Deutsche Post DHL is planning to use the electric van for delivering letters and parcels.

To coincide with the trade fair, Deutsche Post DHL announced an order for 50 prototypes intended for first fleet trials, which will initially be based on a tubular space frame. As the global logistics service provider has set itself the goal to improve its CO₂ efficiency by 30% compared with 2007 as part of its “GoGreen” con-

cept, there is additional interest in further vehicles. Apart from climate protection—assuming regenerative energy is used—the vehicle also offers competitive advantages in terms of acquisition and running costs for short-distance fleets against conventional diesel vehicles. This opens up a comparatively large potential market in the sector of electric minivans. The van will be based on the longitudinally scalable StreetScooter body in order to comply with the relevant safety regulations, and to benefit from economies of scale.

Since 2011, KIRCHHOFF Automotive has been heavily involved in the development of the vehicle frame for the StreetScooter project, particularly in the development of high-strength rolled profiles and deep-drawn and hot-formed components for the front end and structure. Together with Gebrüder Dingerkus GmbH and

The electric minivan from StreetScooter GmbH was presented to the public at the IAA Commercial Vehicles in Hanover. From left to right: Prof. Dr. Achim Kampker (Managing Director, StreetScooter GmbH), Christoph Wagener (Head of Research & Development KIRCHHOFF Automotive), Arndt G. Kirchhoff (CEO KIRCHHOFF Automotive)

ThyssenKrupp Steel, the Attendorn-based, family-owned Company forms the lead engineering group for the body of the vehicle—which was developed in line with the purpose design. In contrast to conversion design, this process does not modify a vehicle with conventional powertrain: rather, it designs one specifically for the electric drive.

This allows a body in white to be created specifically tailored to satisfy the requirements of an electric vehicle, i.e. the usual package of battery and powertrain. This is particularly advantageous for the load curve development during accidents at high speed. Consequently, the vehicle battery can be accommodated in a sandwich floor, instead of crumple zones such as front or rear end; this provides additional safety reserves in the event of an accident.

Marco Toeller



Info

StreetScooter GmbH was established in 2010; the project is regarded as one of the most innovative in the field of electric mobility. The objective was to develop an electric vehicle suitable for everyday use without any involvement from OEMs. The shareholders of StreetScooter GmbH are more than 20 industry partners under the guidance of the university RWTH Aachen/Germany. They have joined together to form the nine lead engineering groups (LEGs) Body, Exterior, Interior, Chassis and Safety, Powertrain, Battery, Thermal Management, Electronics, and Closures, to bundle their research and development expertise and design this electric vehicle together.

IAA Commercial Vehicles 2012: a fair with a lot of records

“Commercial vehicles—driving the future”—this was the theme of the 64th IAA, where KIRCHHOFF Automotive presented its latest innovations for commercial vehicle construction.

Never before has an IAA been as exciting as this one! Never before were there as many new commercial vehicles—vans, heavy-duty trucks, buse—to be seen as there were at this one. The 64th IAA was true to its theme “Commercial vehicles—driving the future” and demonstrated that the commercial vehicle sets technological trends. This sector is the pioneer for environmental technology, efficiency, alternative powertrains, and the optimisation of the diesel engine. The topic of lightweight construction is also being regarded as an increasingly important strategic aspect.

The IAA is the only place where the entire commercial vehicle sector can be seen and experienced alongside the entire value chain of suppliers. As a leading development partner of the international automotive industry for complex metal and hybrid structures for the body in white and chassis,

KIRCHHOFF Automotive was present with a 140 m² stand. Under the theme “WE.MOVE.FUTURE.”, the Company presented the latest technologies and processes in the areas of metal forming as well as product innovations for lightweight body construction, such

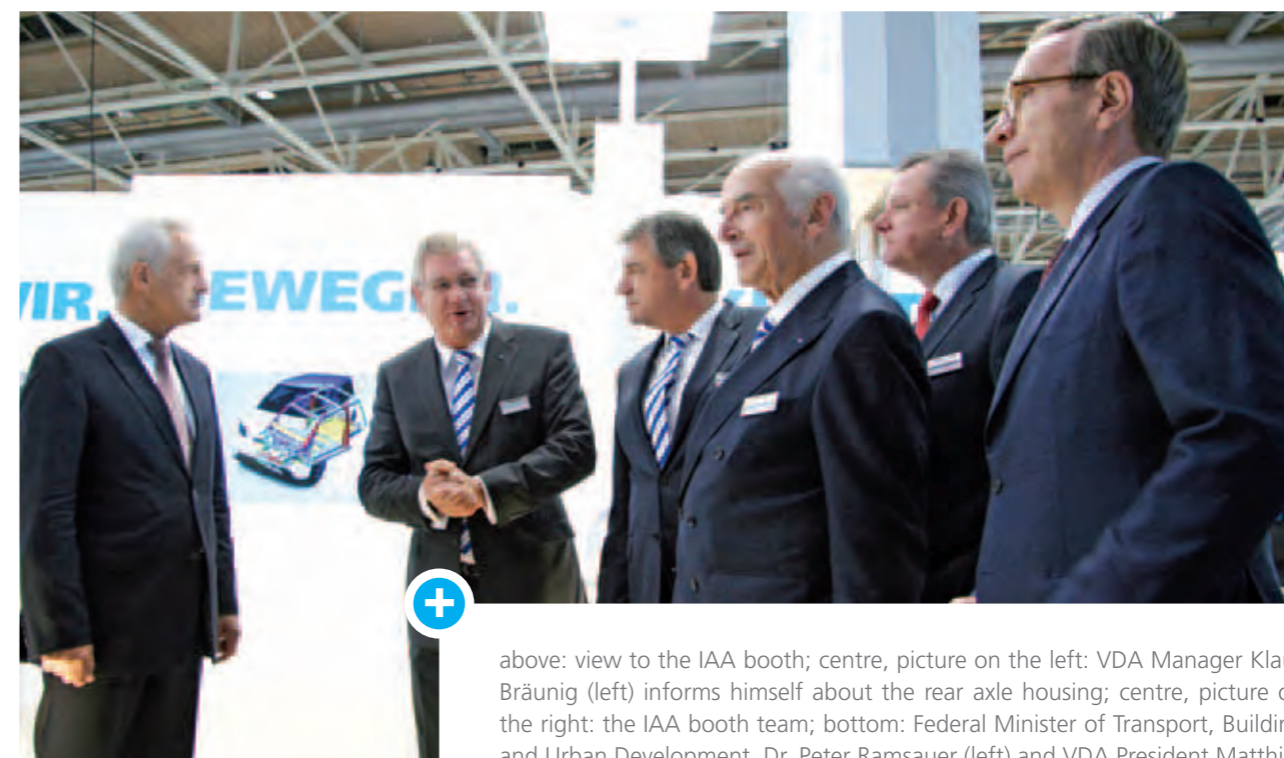
as frame components made of high-strength steel.

High-ranking guests from the worlds of politics and business were amongst the numerous visitors to the KIRCHHOFF Automotive stand.

Amongst them was the German Transport Minister Dr. Peter Ramsauer, who commented: “The best of the best are congregated at this trade fair. I am impressed by the quantum leaps in efficiency, economy, end ecology presented here particularly for trucks.” After his opening speech for the IAA Commercial Vehicles, Peter Ramsauer also visited the stand of KIRCHHOFF Automotive. There, he was particularly interested in the front underderride protection for the MAN TGX and TGS, which is produced at our main location in Iserlohn/Germany using a brand new, fully automated welding unit.

Info

The IAA Commercial Vehicles is the world’s largest trade fair for mobility, transport, and logistics solutions, and is a window to the innovative power of the entire sector. With 354 world premieres—more than two thirds of which from suppliers—there was a new record level of innovations. The number of exhibitors—1,904 exhibitors from 46 countries—is 9% higher than in 2010; the exhibition area has increased by 11%. A total of 260,000 visitors attended the IAA: this represents a growth of 9% in comparison with 2010.



above: view to the IAA booth; centre, picture on the left: VDA Manager Klaus Bräunig (left) informs himself about the rear axle housing; centre, picture on the right: the IAA booth team; bottom: Federal Minister of Transport, Building and Urban Development, Dr. Peter Ramsauer (left) and VDA President Matthias Wissmann (right) visited the KIRCHHOFF Automotive stand.

Due to the changed requirements for installation space resulting from the implementation of the EURO 6 emissions standard, KIRCHHOFF Automotive in conjunction with MAN has completely redesigned the front underride protection. Commercial vehicles must meet the EURO 6 standards for commercial vehicles from 31 December 2013—for new vehicle types the date is 31 December 2012.

For the second time, KIRCHHOFF Automotive organised a day for school pupils and students from the region of Iserlohn and Attendorn as part of the initiative to promote young talent and to provide orientation when choosing a career. Following the theme of "Technology to touch", the Company had invited them to immerse themselves in the exciting working world of the automotive industry. After a tour of the stand and hearing the insights into a day in the life of an engineer, the young visitors explored the IAA exhibition centre. On their return to the KIRCHHOFF Automotive stand, many took the opportunity to ask on-the-spot questions about personal career planning and informed themselves about

the many possibilities of starting a career with the Company and about the extensive range of internships, trainee programmes, and study research projects. At the end of the day, everyone agreed: this event has to be repeated!

In conclusion, this edition of the IAA Commercial Vehicles was a complete success thanks to more world premieres, more exhibitors, more space, and more visitors! And—when one IAA closes its doors, the doors of the next one are about to open: in just under a year, the 65th IAA Cars (12–22 September 2013) will start in Frankfurt/Main, and we hope to see you there again.

We are looking forward to it!

Sabine Boehle



The front underride protection for the MAN TGX and TGS, a product that KIRCHHOFF Automotive is in charge of during all phases of the product life cycle, from design and development through prototyping to series production.



TECHNOLOGY TO TOUCH

Under this theme the students for mechanical engineering from the university of applied science of Southwestphalia in Iserlohn could see and discover a lot at the IAA. On the picture with deanship assistant Rainer Witt (centre) and human resources specialist Tatjana Schutte (right) who presented career opportunities at KIRCHHOFF Automotive to the students



Design sketch of Porsche Macan, source: Porsche

The Porsche Cayenne is getting a little brother

KIRCHHOFF Automotive receives orders for the new Porsche Macan.

An off-road vehicle from Porsche? The idea of the Stuttgart-based sports car manufacturer, that caused many a motorist to shake his head in disbelief 15 years ago, has evolved into a success story. The Cayenne is now successfully established on the market in its second model generation.

Together with its Group brothers built on the same platform—the VW Touareg and Audi Q7—the target production figures for the vehicle have been clearly exceeded for the last few years. What seemed more obvious than to develop a little brother for the Cayenne? The new, fifth series from Porsche will be called "Macan", derived from the Indonesian word for "tiger". Production of the Macan will start at the end of 2013 in Leipzig. The Porsche plant there will be expanded to become a

fully-fledged production location with body shop and paint shop for this new SUV.

Currently, KIRCHHOFF Automotive is already represented at Porsche with innovative and sophisticated products, such as the transmission mounting for the Cayenne, and rear-axle cross members, which were developed in-house and can be found in the 911 series and Boxster/Cayman.

This made our joy even greater when we were awarded the order for a package of thermoformed structural body components for the new Macan in spring this year. Made of ultra-high-strength steel on the thermoforming lines of the KIRCHHOFF plant in Esztergom/Hungary, our components play an important role in satisfying the high crash requirements. At the same

time, they make a contribution to reducing the weight of the body in white—an aspect that is vitally important in the SUV segment.

We received a further indicator of the positive collaboration with Porsche, which came in the form of the order for a structure component in the Macan's front compartment in summer. Developed as two variants for different engine types, this welded assembly with subsequent CDP surface treatment will be manufactured at our plant in Iserlohn/Germany.

These new orders will significantly boost sales with our customer Porsche.

Jens Römer

Twice top marks for exceptional quality

Not one but two KIRCHHOFF Automotive plants received the Quality Excellence Award from General Motors. The plants in Ovar, Portugal and Suzhou, China were the recipients of this distinction.

The Quality Excellence Award is a new initiative of the Global Quality department at the GM Group in Detroit/USA, which is awarded in parallel to the traditional Supplier of the Year Award to suppliers who have impressed with exceptional quality and worldwide, cross-function support for the global GM organisation.

Only 7% of the global suppliers have been awarded this honour by GM.

Simon Stephan, Managing Director of KIRCHHOFF Automotive Suzhou, and Steve Liu, Quality Manager in Suzhou, received the award in Shanghai, China in September.

The award for our plant in Ovar was presented during a ceremony at the European GM headquarters in Rüsselsheim, Germany, where Paul van Rooij, Managing Director of KIRCHHOFF Automotive Portugal, collected the distinction. These high accolades show that our customers value us for our great flexibility, global quality standards, reliability, and teamwork. Many thanks to everyone who has made this success possible.

Dr. Thorsten Gaitzsch



left and centre: ceremonial handing over of the GM Supplier Excellence Award by Gu Ming (GM) to Simon Stephan, Managing Director KIRCHHOFF Automotive Suzhou, right: Paul van Rooij (left), Managing Director KIRCHHOFF Automotive Gametal, Portugal, is together with Thomas Simon, Vice President Opel/Vauxhall Quality pleased about the GM Quality Excellence Award



Skyline of Shenyang—cultural and economic centre of Northeast China

Expansion on the world's largest automotive market

Shenyang. KIRCHHOFF Automotive is planning third plant for China.

In recent years, China has evolved into the largest domestic automotive market in the world. For 2012, growth of 7% and sales totalling 15.5 million vehicles are expected. KIRCHHOFF Automotive is taking advantage of this promising trend by following one of its key accounts, "Shanghai General Motors" (S-GM), to Shenyang.

Our Company has three new orders for the vehicle model D2xx (Chevrolet Cruze/Buick Excelle XT and GT). In order to deliver the first parts by the end of 2013, a new JIT plant will be constructed in close proximity to the S-GM plant in Shenyang. Shenyang is the capital of the Northern Chinese province of Liaoning and is located close to the sites of our clients Brilliance and BMW Brilliance. Our customers FAW-VW, FAW-CC, FAW-Toyota, Chery, and DMC-Nissan manufacture in Changchung, approximately 280 km away, and in Dalian, which is 400 km away.

The new plant in Shenyang will strengthen our footprint in China and provide strategic opportunities in relation to the Northern Chinese automotive industry.

Three new orders from Mazda, Geely, and PSA

KIRCHHOFF Automotive in Suzhou was awarded three new orders during the last quarter of 2012. The first order is for the cross car beam for the new Mazda 3 from **Changan Mazda Automobile** (CMA, previously known as CFMA-NJ). The parts are being supplied to DNKY (DaikyoNishikawa Kaiyang Auto Parts Co., Ltd.) in Nanjing, a Tier 1 supplier to CMA. Currently, our plant in Suzhou is supplying CMA with components for front and rear bumpers. This new order means we will be manufacturing and supplying the first cross car beams for a Mazda model.

We have long been pursuing an expansion of our collaboration with Chinese manufacturers. One success of these efforts is the order for the cross car beam for the new off-road vehicle

KC-1 from **Geely**. Start of production is scheduled for March 2015 with the parts being supplied by our plant in Suzhou. Moreover, we have concluded development agreements with the Geely Group for three crucial components for the KC-1 vehicle model.

Based in Ningbo, the Geely Group is a privately financed Chinese vehicle manufacturer with a sales volume of 435,000 vehicles in 2011. The Geely Group became known thanks to its acquisition of Volvo and its international expansion strategy.

The third order is for a welded assembly common in three models of the manufacturer Changan **PSA** (CAPSA) in Shenzhen. This component is the first product that our plant in Suzhou will deliver to CAPSA. Start of production is scheduled for the last quarter of 2014.

Simon Stephan



Current Mazda 2 model with front bumper



The successful team of new tool making

Finalist in the Excellence in Production competition

— Award for synchronised production systems in tool making.

In the Excellence in Production competition, the tool making staff at KIRCHHOFF Automotive took second place in the category of "Best in-house tool making with more than 50 employees", and was thus ranked at a respectable tenth place from a total of 297 participants. This means that the team surrounding Jürgen Wlochowicz and Andreas Willmes has finally found its place amongst the top flight of German tool manufacturers.

For the second time, the tool-making department of KIRCHHOFF Automotive took part in this prestigious competition organised by the Fraunhofer Institute for Production Technology IPT and the Laboratory for Machine Tools and Production Engineering WZL of the

university RWTH Aachen/Germany. Three years ago, comprehensive restructuring measures were introduced with the goal of implementing synchronised production systems. Now, the complete revamp of the organisational structure, and modification and optimisation of all internal processes are showing the first signs of success.

Stock levels were reduced by more than 50% and throughput times for individual tool orders increased by 30%. This was made possible by the systematic synchronisation of all processes starting from method planning to the design and production planning, and up to machining, assembly and tool testing.

In addition, an Intranet-based knowledge management database was set up,

which provides swift access to important factory knowledge. This is accessible from every workstation in departments of design, production planning and production, and ensures the continued expansion of knowledge.

At almost exactly the same time as receiving the award by the Fraunhofer Institute and WZL Aachen, the Executive Board decided to invest in the construction of a new production hall with floor space of 2,300 m² for tool making. Thanks to its proximity to the process development and prototype production departments, the EUR 2.6 million new building will be ready for operation in May 2013, and will further

Stefan Leitzgen



Tool making department in 2011 ...



... and after implementing the synchronised production systems in 2012



Awards ceremony Excellence in Production



Congratulations to the teams of North York und Richmond Hill who made this award possible through their outstanding team performance.

General Motors Supplier Quality Excellence Award 2012

— North York and Richmond Hill were awarded for outstanding accomplishments.

Besides ensuring the safety of our people and improving productivity, we also believe in taking care of customers as one of our top priorities. It is said, "If you don't take care of the customer, someone else will".

Both North York and Richmond Hill teams do just that and are proud to both receive the General Motors Supplier Quality Excellence Award for 2012. The GM Supplier Quality Excellence Award joins the 20-year-old "Supplier of the Year" Award and recognizes about 7 percent of GM's product suppliers. This award is given to specific supplier locations, and only the top-performing suppliers are eligible to receive it. Suppliers who receive this award have met or exceeded a stringent set of quality performance criteria along with the cross-functional support of the entire GM organization over 12 months, July 2011 to June 2012.

"Suppliers play a vital part in the overall quality of our vehicles, and we view their hard work and dedication as part of the foundation for GM to continue to be a leader in product quality and overall customer satisfaction," said Bob Socia, vice president GM Global Purchasing and Supply Chain.

We are celebrating this award, but are at the same time aware that we have to keep up the excellent performance and require a greater effort from everyone to win the award again next year. This is the way how we can secure our relationship with our customers, which in turn, will secure our future.

A challenge, we do not mind to meet again and again.

Long Nguyen, Hans Lubke,
Alan Galardo





left: the 2,500 tonnes press, above: Sven Kimm, trainee industrial mechanic and tool engineering in front of the large press tool

above, from left to right: Marco Adelsberger, André Schaake, Gerhard Nagel, Huseyin Canpolat, Marius Krage, Hans-Peter Böhlen, Benjamin Groehlich, Kire Josifoski, bottom: Production of tank consoles with the new 2,500 tonnes press

The largest in the Group

The new press goes into trial operation in Iserlohn in September—in May 2012 the installation of the 2,500 tonnes hydraulic large press started at the Iserlohn location in Germany. With a table dimension of 6.1 x 2.5 metres and a pressing force of 2,500 tonnes, it is the largest press in the KIRCHHOFF Automotive Group.

It was possible to start trial operation with the first moulds by the middle of September. The machine has been designed specifically for processing high-strength medium and heavy sheets with component weights of up to 80 kg. For our Company, the investment in this hydraulic large press represents—alongside the acquisition of the thick-plate press in 2009—a further strengthening of competitiveness for the production of frame components in the commercial vehicle sector.

As a strategic supplier of frame components, KIRCHHOFF Automotive has been accompanying the development of the new Mercedes Actros since 2006. The 2,500 tonne press automatically produces components such

as tank consoles and cab bearings for this truck. The sophisticated moulds required for this press were manufactured by our tool making team in Iserlohn and Olpe. Additional production ramp-ups for Volvo Trucks and the new Ford Transit are scheduled for 2013.

The hydraulic press made by Schuler SMG has three bed and slide cushions. As a result, moulding functions such as displacing blank holders and hold-down plates can be actively controlled with up to 250 t. The transfer line and blank feeder were manufactured by Dreher Automation. One particular deciding factor for the acquisition of this system was short changeover times. A semi-automatic changeover process enables times under 15 minutes. This

is an additional competitive advantage, particularly in the commercial vehicle sector, where there are comparatively low numbers produced and associated batch sizes are low accordingly.

We would like to take this opportunity to express our particular thanks to all project participants from Schuler SMG, Dreher Automation, Raziol, and Neuhäuser, as well the Central Manufacturing Engineering (CME) department and everyone from the Iserlohn location who assisted in the commissioning of the new press.

Jens Schöttler

Close to the customer

— The Van-Rob KIRCHHOFF (VRK) plants in Mexico are located in strategic proximity to the big German vehicle manufacturers and will continue to grow together with them.

The strategically located plant of VRK Puebla only is 2 km away from VW; here, a complex assembly of welded components for seat backs for the VW Jetta is produced. The sheet metal parts that are stamped at the Querétaro site are joined here with the latest laser and MIG welding devices and delivered to the customer just in time.

In addition to VRK Puebla supplying parts to VW so does VRK Querétaro. The Querétaro facility is approximately 320 km away from VW in Puebla. With its expertise in MIG, spot and laser welding, along with a variety of large stamping presses and its e-coating facility, VRK Querétaro is poised to grow not only with VW but also with other big vehicle manufacturers.

Vehicle manufacturing in Mexico and United States will continue to grow in the future. In addition to the facility in Puebla, VW has opened a new facility in Chattanooga, Tennessee USA in April 2011 in order to build there the new Passat model for the North American market. In addition to VW's expansion, Audi has announced that they will

be opening a new assembly plant near Puebla.

Currently it is assumed that BMW will establish a new plant in Mexico close to San Luis Potosi, approximately 200 km from VRK Querétaro.

Daimler is planning a joint venture with the global OEM Renault/Nissan.

It is expected that therefore the Nissan plant in Aguascalientes will be enlarged accordingly. The plant would manufacture "A" class vehicles for both Daimler and Nissan. Production start is planned for end of 2017 or beginning of 2018.

All three German OEMs plan to add manufacturing capabilities in Mexico

over the next five years. Van-Rob KIRCHHOFF's strategic locations, along with strong customer relationships and a wide array of technical expertise will help the company to expand its business with the German OEMs in Mexico and all of North America.

Chris Daskas



above: seat back assembly
right: VW Jetta



MEXICO

Strategically located in an advantageous position: The three Van-Rob KIRCHHOFF sites in Hermosillo, Querétaro and Puebla.

Core Competence laser welding at Van-Rob

In 2013/2014, Van-Rob we will presumably pass the 40% mark of their total North American sales value, with the sales of components having a content of laser-welding.



In Conclusion

Lasers are a tool growing more and more stable in our automotive manufacturing environment. The companies who can master them will see a large benefit from using these tools. However, as you read in this article, it's the team and their understanding of the product that will make the difference.

A final thought, not everything can be laser-welded!

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In 2005 Van-Rob only had one CO₂ system, for 2014 the use of more than 35 systems is expected. The first cell was a 5 Axis Laser, with both cutting and welding capability. This unit was mostly used for laser cutting of Hydro formed frame rails for a low volume sports car. The next step was a year later with the first high volume program, a radiator support with a number of laser welded profiles. At full volume, 19 km of laser weld was generated per day. Some lower volumes of tailor welded blanks were welded in 5 Axis cells, as well as some more complicated upper tie bar assemblies.

The next step—Remote Scanner Welding using disc laser

With this technology one can make advantage of the fast movement of the laser- in fact in manufacturing of larger assemblies with multiple of welds in the modules. It began with an order for seatbacks with flat welding areas, 4 meters of weld and very suitable for

remote scanner welding. Currently Van-Rob is producing a yearly volume of up to 500,000 car-sets and with additional awarded contracts this volume will climb to 750,000 car-sets by 2014. This program was followed with a medium volume instrument panel beam. By switching the beam between different work cells while repositioning the assembly, it was possible to keep high laser utilization in this more complicated assembly. More instrument panel beams are now in production using the same concept.

Why to use laser welding?

In some cases there are very few alternatives, such as the profiles with 19 km of weld, where you need something fast and you need to create a minimum of heat distortion. Other reasons are:

- Less weight (no weld-wire, possible use of thinner material)
- Less welding fixtures, due to faster welding

- Simple operator stations, with possibility to use fewer operators
- Higher dimensional quality, less weld distortion (this is a big selling point in today's automotive quality environment)
- High Flexibility and suitable for Quick-change
- High mobility, easy to move plant to plant
- Lower weld cost (per meter of weld) with the newer higher efficiency lasers
- Lower capital cost (fewer systems) using less floor space

It can be all or some of the above reasons driving the selection to use lasers. In the end, the largest reason is the competitive environment driving the most economical tools.

What about the programs going forward?

Right now Van-Rob is in a pre-production phase of the largest program

in the companies organizations history, involving 4 different production locations within North America, with staggered launching of the locations and in the end producing up to more than 1 million units per year and one brand new plant.

The backbone of this program is remote scanner welding of a thin zinc coated material with very tight dimensional tolerances. The zinc coating of thin structural metal is an automotive reality, but it is creating a new dimension of complexity and accuracy needed in the weld joints. Laser welding of uncoated steel is suddenly looking easy. There are even more orders for front end structures as well as instrument panels.

What are the challenges?

Skilled people, this is not only the people using, teaching or programming the laser. It starts with the designer and the process engineer understanding

the part and designing it for the best configuration. The tool and die department has to give early input together with quality engineering. Without diligent work in all of these functions and we will have difficulties down the road.

Stamping dies have to produce higher quality parts in the critical weld areas. High strength material will create new challenges both in forming and welding.

Our zinc coated assemblies are forcing us to pretreat the work pieces with a "dimpling process", to create a gap between the work pieces for outgassing of the vaporized zinc. This gap is driving an undercut by design.

The sub supplier's quality, particularly for tube and profiles, has to be well-known. Van-Rob is welding components to these profiles and is faced with convexity, concavity or bows, this will affect the weld quality. For equipment failing clear backup systems are needed. In some cases this will be as

simple as relocating a fiber to a different output. Worst case scenario having to change the laser.

What is the future development plans?

As always, customer's needs drive the development, but for Van-Rob the following areas are seen as high potential:

- Hybrid welding, using mig/mag in combination with laser, for faster welding with wire and deeper penetration.
- Laser welding of Aluminum has to be developed.
- Understanding the heat affected zone when laser welding high strength steel.
- Development of Quality inspection systems to ensure the weld quality is high on the list.

Bo Lindgren

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left: provision of finished components for the warehouse with milk run process; centre: warehouse-scanner registration of finished components right: KANBAN controlled provisioning of welding cells with single parts by use of milk run.

Lean production in Romania—a successful concept

The latest plant in the KIRCHHOFF Automotive family in Craiova/Romania benefits from the application of lean principles defined in the KIRCHHOFF Automotive Production System (KAPS).

The plant in Craiova is the Group's first "customer on-site" JIT plant, where the entire logistical process has been designed according to the milk run concept. This applies to both single parts and finished components. The internal delivery chain is based on a warehouse management system with a so called "supermarket" and point of fit. This system supplies the base data for the kanban control system. Scanners are used to record incoming goods. This reduces administrative costs and aids the later traceability integrated in SAP. The guiding principles of this concept are "one piece flow", the usage of a kanban monitoring system, a forklift-free production area, and a paperless factory. The following rule also applies to the milk run process

already in place: the right amount, at the right time, at the right place.

"I'm very pleased that we have introduced this lean manufacturing concept here in Craiova", explained Gabriel Porojan, Managing Director Operations at the Romanian plant. "The milk run system improves the efficiency of internal transport, thereby reducing transport costs, and creates safe working conditions in the logistics department. Many thanks to the excellent team who contributed towards making this project successful."

All investments in the logistics department have been guided by Andreas Denso, Logistics Project Manager in Craiova. Together with

Liliana Cotet, Head of Logistics at KIRCHHOFF Automotive România, he selected cutting-edge installations and equipment. The modular platforms/systems for incoming and outgoing goods installed in order to ensure optimised flexibility towards the customer are one such example. Safety guidelines for transporting goods as well as special trailer systems were adapted in close co-operation with Ford.

It is our goal to supply best quality by means of an efficient delivery chain. For this reason, we will further adapt our processes to the procedures followed at Ford, our client.

Carmen Iacob

Info

The milk run concept or milk bottle concept is a concept used for procurement logistics and distribution logistics to provide material internally or externally just in time. The concept is based on the general idea that the material is only replenished by the amount that was actually used. The batch size is specified as a one-off for this process and controlled via signal cards as required.

Optimisation of shipping processes

Attendorn. Shaping transparent and efficient transport management.

The development of the product range in past years towards parts with greater added value was accompanied by a significant rise in transport volumes. The number of shipments prepared for dispatch is currently up to 120 trucks per day. This has made it increasingly challenging for the Attendorn plant to keep up with its daily transport logistics, such as queuing trucks, unproductive waiting times, an increase in accident risk, and inefficient use of staff.

Two measures were implemented to tackle this growing concern. For the first time, a web-based time slot management system provided by the supplier Transporeon was implement-

ed at the Attendorn location. In conjunction with the newly constructed truck buffer zone with a registration and call-off terminal, it has already significantly improved the situation.

Our employees are now able to view upcoming ramp contacts via a web portal. This, in turn, facilitates the proactive and balanced allocation of personnel and resources, as well as the prioritisation of upcoming work requirements.

All truck drivers are also required to register their arrival at the terminal in the adjoining buffer zone. Employees at each workstation are able to view the status as well as manage the

entry for each truck. Truck drivers can visualise this on information terminals similar to those in airports. In addition, drivers are automatically notified via SMS. These measures have led to the long-term optimisation of transport management at the Attendorn location.

Frank Buchholzki, Andreas Denso



above: Truck buffer zone; below: Transporeon's time slot management system

Info

Time slot management: transport orders created in SAP are transferred via an interface to a web-based portal and serve as posting objects for available time slots in the incoming inspection, shipping, and empties departments for delivering or collecting forwarders. This is based on the number and duration of capacities (hall, forklifts, personnel, loading bays, etc.). Employees can then view upcoming ramp contacts via the web portal.

Improved material flow

— Ovar. In August 2012, KIRCHHOFF Automotive Portugal commissioned its new logistics building with a floor space of 4,000 m².

The new incoming and outgoing goods department has an area for dispatch operations, which accounts for approximately two thirds of the space. There is also a special area that acts as a transit area for dispatches to and from the KIRCHHOFF Automotive plant in Cucujães/Portugal. This department is also responsible for receiving and storing purchased parts and consumables.

This new arrangement will ensure a simpler and improved material flow

Special monitoring and control systems were introduced to optimise the allocation of storage bays and ensure the FIFO principle is respected. To save space, a new handling process was introduced with the aim of reaching the trucks directly while avoiding the use of forklifts.

The new building has led to the consolidation of various logistics processes, which were previously conducted across two storage buildings. Consequently,

the material flow has been optimised and working procedures rationalised.

Soon a milk run system will link the new logistics building with the two production buildings in Ovar.

Tomás Moreira



We thank the project team for excellent organization and support in building-up the new logistics area.



New warehouse in Ovar



Cross Car Beam from KIRCHHOFF Automotive for the current Opel Astra Model

At the same level worldwide

— Global standards, transparency, and regular consultation are critical success factors when implementing development contracts.

KIRCHHOFF Automotive has recently started with the implementation of development contracts for the GM Global Delta Platform for the next generation of Opel Astra.

In connection with this, the Global Review Meeting on development projects concerning axle beams, dashboard supports, and the new battery system support took place in Attendorn during CW 43. In order to ensure that future processes can be implemented in China, Korea, America, and Europe, our foreign locations were already involved at an early stage in the process coordination.

The meeting, which was attended by international specialists from the Central Manufacturing Engineering departments as well as project managers, provided an opportunity to exchange experiences from the “lessons learned” process. In this context, prototypes are manufactured at the Tec Centre in Attendorn under near-series conditions. The processes for subsequent large-scale production are then derived from the findings. During the

meeting, future series processes were discussed with responsible representatives from our foreign locations. The objective is to produce series products of identical quality using standardised processes on all three continents—Europe, Asia, and North America—while taking advantage of cost synergies.

In accordance with our product creation process guidelines, two further meetings in Attendorn have been planned this year. Furthermore, 14-day web conferences will be held to

ensure the required flow of information. In order to guarantee the highest possible level of transparency for all processes and short communication paths to our customer, Opel, we have set up an office at the Opel plant in Rüsselsheim as part of this development project.

Andreas Nebeling



An international team of engineers is in charge of the development projects, among them also Andreas Bender, on the right side, who leads the GM project as Senior Project Engineer and has his office directly at the Opel plant in Rüsselsheim.

On course for further growth

Mielec. New organization of logistics and material flow.

Two new loading docks, an extension to the logistics area and a new material flow bring crucial improvements.

In recent years, the Eastern European KIRCHHOFF Automotive plants in Gliwice/Poland and Esztergom/Hungary have grown considerably. However, the development of these JIT plants in customer proximity has also led to the expansion of the variety of products and production for the plant in Mielec/Poland, as this plant undertakes many manual production processes for the products from the new locations. To this end, the plant's machine shop and shipping departments were expanded in 2005/6. The number of end products shipped from Mielec increased from 54 million parts in 2006 to 102 million in 2011. 50 trucks depart from the outgoing logistics department on a daily basis.

Despite the dramatic increase in dispatched parts, the factory has only had one loading dock until now, which has had many disadvantages:

- delayed loading
- complex material flow (transport paths crossing)
- increased risk of accident in the vicinity of the warehouse and loading area

Analyses identified that the number of dispatched trucks could only be increased if the loading time and the time for preparing dispatch could be reduced. A concept was prepared, which involved the expansion of the logistics building and the set up of two loading docks. This provided the opportunity for the material flow to be completely redesigned, too.

In just under five months, the incoming and outgoing logistics department

was modernised and expanded by approximately 500 m². Work was successfully concluded at Mielec at the end of September.

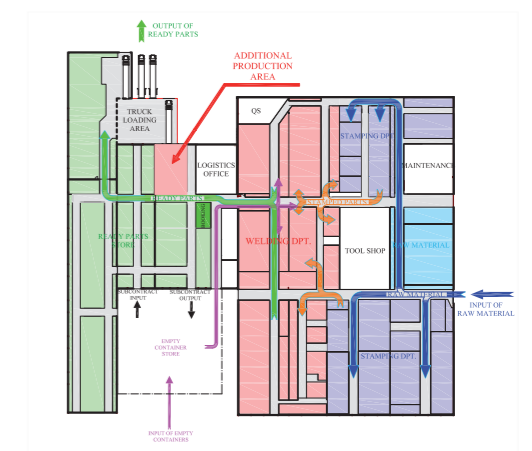
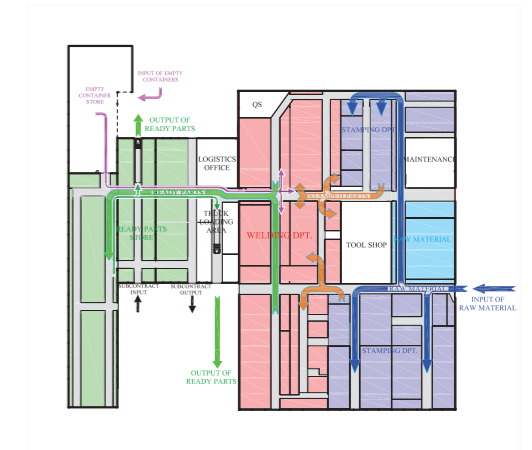
Upon implementation, immediate quantifiable improvements were recorded.

- Loading time was reduced from 45 to 30 minutes.
- Material flow and internal transport were optimised, which also contributed to a reduction in internal transport costs.
- Part quality was improved and quality assurance costs were reduced.
- The accident risk was minimised on internal roads and in the logistics area.
- Moreover, the re-organisation has led to 335 m² of floor space being gained for production purposes.



above left: despatch area
below left: loading of empties in the roofed warehouse

below: arrangement of the warehouse before and after the extension



Even before commissioning the new outgoing logistics area, a KAPS working group was set up with the objective to introduce the 5-S standard. An additional workshop was dedicated to the 5-S standard for empties and the organisation of the finished parts warehouse.

Plant management is expecting that these optimisations will achieve additional quantifiable results. One of the goals is to reduce warehouse space and thus gain production area, and also enable the implementation of the milk run. This system involves the use of small electric trucks for supplying materials to the presses and welding machines, and dispenses with the use of forklift trucks to a large extent.

Janusz Sobon



Info

The plant in Mielec has 19 mechanical presses, 40 standard resistance welding machines, 25 welding and fusion welding robots, over 20 manual spot welding machines and further equipment for various assembly processes such as riveting, cartridge insertion, screw fitting, and brazing



Exemplary leading

KIRCHHOFF Automotive leadership principles and behaviour. The success of KIRCHHOFF Automotive is associated with the success of our executives, because they look after our Company's most important resource: our employees.

At the request of our Company management and together with management staff from all countries, we have put together the KIRCHHOFF Group leadership principles, which came into force in 2010.

Since then, these principles have been communicated to senior management via our international executive development programme, "Learn to Lead", in order to promote a uniform leadership culture in all KIRCHHOFF Group companies throughout the world.

After the launch of the leadership principles, the question arose, in particular for junior and middle management, of how our managers can implement the

existing rules in their daily work in the plants. At a workshop in June 2012, our regional directors from European locations and the central personnel function addressed this question and put together seven behaviours and specific hints and suggestions to make it easier to use the leadership principles in day-to-day work activities.

We will start communicating our "leadership behaviours" from December 2012 onwards in a training session designed by KAPS and the central personnel function. This process will start with the managing directors of our plants. At the same time, we will make a "tool box" available to all of our managers, which provides practical support and

specific guidelines for the daily demands placed on a manager.

After establishing our KIRCHHOFF Automotive leadership principles, our KAPS "leadership behaviours" are another step towards the creation of a uniform leadership culture at all levels of our Company.

Tim Klieve



Participants of KAPS Leadership Workshop

KAPS Leadership Behaviour

1. I respect standards
2. I act with respect and fairness
3. I communicate clearly
4. I empower and develop my team
5. I share my knowledge
6. I promote continuous improvement
7. I am a good example

Finding and promoting potential within the Company

Agenda 2015—KATE will be launched.

There is a growing need for qualified employees. At the same time there is a dramatically increasing shortage of skilled workers against the backdrop of demographic change in Europe. What options does a mid-sized Group have in this environment to maintain its competitiveness or even to improve it?

The answer to this question is obvious. In order to further be able to fill open positions in the Company with well-trained and motivated candidates in the future, existing potential must be identified, promoted, and utilised. At KIRCHHOFF Automotive, this is called KATE—KIRCHHOFF Automotive Talent Education. KATE will start in 2013 and is a systematic process to promote our employees—irrespective of job or hierarchy level.

KATE starts with the annual employee appraisals, on the basis of which a nomination can be made for the programme. In this process, we not only take into account employees who are striving for a management career, but also those who are aiming for on-going development in specialist areas. There are around 60 places available worldwide for KATE in 2013. Using an analysis of potential, we take a close look at the most suitable development steps

in order to support each participant in an optimal manner. We offer participants the opportunity of starting an intensive exchange of experience across country borders by means of international project work. In addition, there are also workshops, which deal with the basic values of the Company as well as tailored content. Employees spend a maximum of three years going through this programme in order to prepare themselves in the best possible way for new challenges within the Company.



We define those employees as talents, who ...

- ... demonstrate outstanding performance,
- ... embody the core competencies and values of our Company,
- ... have significant expertise in their area of work, and
- ... show potential to grow together with KIRCHHOFF Automotive

Alongside the executive development programme, "Learn to Lead", which started in 2010, KATE is the next module of our global personnel development. In conjunction with strategic personnel planning and our progression and succession process, we are in a position to offer our home-grown talents a career at KIRCHHOFF Automotive.

The decision to take a position in our Company is not just influenced by the salary. Instead, individual requirements such as on-going development opportunities, freedom in an interesting job, and the organisation of working time are playing an increasingly significant role. This is why proposals relating to work-life balance are more and more important alongside classic personnel development.

KIRCHHOFF Automotive offers both and therefore remains an attractive employer in an international environment.

Uwe Hartmann, Tim Klieve

Future oriented apprenticeship programs at Van-Rob

— The apprenticeship program at Van-Rob KIRCHHOFF in Querétaro, Mexico is based on the German and Swiss System known as the DUAL System, which means 60 to 70 percent practical and 30 to 40 percent theory.

The entire apprenticeship program as tool and die maker lasts three to three and a half years and ends with the final in-house examination as well as an examination in the facility of the Mexican Secretary of Education.

- Technical drawings, application and basic CAD knowledge
- Different types of stamping technologies, die types, deep drawing of different shapes, developing of blanks, progressive die concepts and automation of processes

The practical part of the test requires certain skills: working on the bench (filing), operating all the machines that are used in the tool room for die building or repairs, as well as engineering changes like drilling, milling, grinding and turning.

The theoretical part consists of a test on the following knowledge:

- Materials (different kinds of steel and their applications), different types of heat treatments, non-ferrous materials and their applications
- Cutting tools and their applications, cutting speed, feeds depending on the different kind of cutting tools
- Calculation of cutting time needed to produce different types of parts in the tool room, mathematics, trigonometry, geometry, equations, fractions and a number of technical formulas

During the apprenticeship program the apprentices support and assist in the tool room, build and refurbish spare parts and carry out repairs. Currently twelve former apprentices are still working at Van-Rob in Querétaro in different areas, gaining further experience and skills in the real life as tool and die makers.

Currently there are five apprentices in the third year and six in the first year of their apprenticeship program. With this kind of apprenticeship program the young people are prepared for their later profession in a targeted manner. In addition, it is a good basis for future opportunities.

Fritz Hauser



above: apprenticeship at Van-Rob in practice, below: apprentices in the area of tool and die making

Technology with a female touch

— More and more women are taking an interest in the engineering profession.

Just a few years ago, there were very few women either in technical professions or on technology-oriented study programmes. However, the efforts of universities and companies to inspire young and committed women to start an engineering career are showing results.

At present we are five female students at co-operative universities in the mechanical engineering, vehicle construction, and industrial engineering departments of KIRCHHOFF Automotive in Attendorn. The familiar picture of exclusively male students at the technical faculty has largely changed.

We noticed during our first few weeks at the University of Siegen that many more of our fellow students were female than we had expected. Some had already completed an apprenticeship and had subsequently come to the technical faculty of the University of Siegen. Others had decided to take mechanical engineering or industrial engineering after completing their secondary education (Abitur).

After our internship or apprenticeship as technical draughtswoman at KIRCHHOFF, we applied directly for co-operative studies here. We were interested in the variety within the automotive industry, the technology, and all related processes, and wanted to find out more. Of course, the excellent career prospects associated with engineering studies and last but not least KIRCHHOFF Automotive's international presence helped us decide.

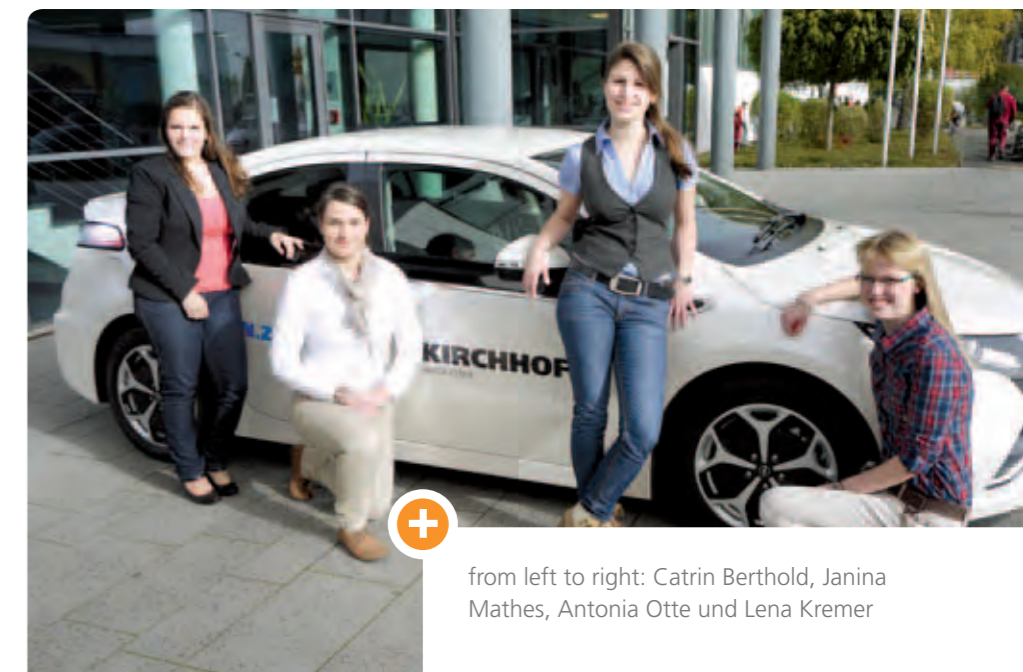
We have not regretted this decision yet. At university we learn the theory, which we can then put into practice in the Company. During the semester breaks, we spend time in various different departments, ranging from tool making to the sales teams, and from costing to computer-aided simulation. This is where we also experience the variety within the engineering profession and the unimaginable possibilities for our future career.

Though it's not a typical sight, the picture is changing: whereas it used to be only male workers standing at the workbench, nowadays an increasing number of young women who are learning a technical profession are found in this department. We also gained our first experience at the workbench in the training workshop. The syllabus covered filing, milling, turning, and welding. There was also

a great deal to find out about tool making. This is how we obtained our practical insight into the manufacture of new tools and into the importance of servicing as well as the preventative maintenance of forming moulds.

After successfully completing our studies, we look forward to working on different customer projects as young female engineers at KIRCHHOFF Automotive, or even being responsible for the management of these projects. Our female intuition will certainly assist us in solving complex tasks and will open up new perspectives for the Company.

Catrin Berthold



from left to right: Catrin Berthold, Janina Mathes, Antonia Otte und Lena Kremer

Looking for the right candidate

— New: assessment centre for the selection of students.

On 19 September 2012, a new personnel selection process was implemented for the first time: twelve internal and external applicants had to attend a one-day assessment centre (AC) in order to qualify for a place for co-operative studies or joint studies at KIRCHHOFF Automotive.

For a long time, we have noticed the rising numbers of applications for university places. It is no longer sufficient just to analyse application documents in order to make a sound, objective selection. Nowadays, students must also possess many more so-called

“soft skills” in order to pass the demanding study programmes.

The assessment centre was designed in accordance with a predefined analysis of requirements: the tasks focused on competences such as communication, co-operation, problem analysis, perception, or concentration. Six observers were trained to carry out the AC and assessed the applicants in group discussions, case studies, interviews, and role plays with regard to the aforementioned criteria. From now on, this procedure will be used annually as a selection process and will be developed further.

Alongside the online test procedure for trainee selection, which has already been implemented, we are thus showing our professionalism in the recruitment market and ensuring acceptance. At times when qualified employees are scarce, the use of scientifically based, objective tools in the selection of personnel is becoming increasingly important in order to support the employer’s branding.

Tatjana Schutte



above left: big discussions on the first days: Which characteristics should have an apprentice?, bottom left: We understand each other blindly—communication and coordination in a roap square, right: Our apprentices on the KIRCHHOFF Automotive stand at the commercial vehicle IAA

Familiarization— Discovery—Experience

— This is also part of training—on 15 August 2012, thirty-one new apprentices from Attendorn, Iserlohn, and Hagen started their journey through the world of KIRCHHOFF Automotive.

Familiarisation started on 15 August 2012 with the three-day introduction at the Haus Nordhelle conference centre. In fun teamwork and trust-building exercises the apprentices learnt which values they are to represent at KIRCHHOFF Automotive. On the second evening it became exciting for the trainees. During the visit of Arndt G. Kirchhoff, CEO of KIRCHHOFF Automotive, they had the opportunity of asking questions such as, “Do you have a Facebook account?”. During this seminar, the trainees not only found out more about their own apprenticeship occupation, but also gained an insight into others. The event was rounded off by presentations from the trainers and the Works Council.

Discovery started on 25 September 2012 at exactly 7 a.m. for all apprentices and led to the IAA Commercial

Vehicles in Hanover, the largest global commercial vehicle exhibition. At the KIRCHHOFF stand of IAA Commercial Vehicles, the young people were able to see and touch innovative products in the field of automotive lightweight construction. The Sauerland-based Company had invited them to its nearly 150 m² stand, in order to bring automotive developments closer to them in a direct and clear way. Dieter Wlochowicz, Engineering Manager Truck, presented the product features and the technologies involved. After this, the traditional IAA rally started, which led the apprentices across the entire trade fair to the stands of different commercial vehicle manufacturers who use KIRCHHOFF Automotive products in their vehicles.

The **experience** was gained in the course of a driving safety training at the Olpe vehicle training area of the

ADAC (German Automobile Club) on November 6th, 2012. This is where apprentices of legal age from Attendorn and Iserlohn holding a valid driving licence will learn how to keep their car under control on the road in difficult everyday situations.

Furthermore, the apprentices will also be supported during their training programme with on-going training. Alongside the professional qualification, the objective of the apprenticeship at KIRCHHOFF Automotive is also to support personal development.

Tatjana Schutte



We are Attendorn

The city festival at Attendorn was a huge success. From shooting clubs, doctors and hospitals, schools, nursery schools, sports clubs, and restaurants to renowned Attendorn companies—everyone was involved. KIRCHHOFF Automotive was also represented by a 50 m² stand in the trade tent.

A huge amount of preparation was required in order to launch the Attendorn city festival. Almost every family in Attendorn was involved or had a part in its organisation. Ultimately, it was to become a city festival by Attendorn residents for Attendorn residents.

Many visitors, including Mayor Wolfgang Hilleke, visited the trade show at the Feuerreich exhibition area and admired the car body

shell exhibited at the KIRCHHOFF Automotive stand. However, this was not the only highlight. The small kids showed how good they were. Children from the KIRCHHOFF corporate day-care centre, “KiCo Kids”, proudly sang their song, “We’re the KiCo kids, KiCo kids; yes, we’re the KiCo kids, we are all here”. The visitors loved it.

Many people found out not only about the innovative products, but also about training and career opportunities at the medium-sized family-owned Company. Employees showed

their families the car body shell as an example of the type of products manufactured by KIRCHHOFF Automotive.

Anyone who paid attention and listened well could win attractive prizes in our Company quiz.

The beautiful weather left the organisers holding all the aces, and when it was over all guests and participants talked enthusiastically about a successful Attendorn city festival. The new concept worked out perfectly!

Sabine Boehle

“Careers in the tent city”

Premiere: apprenticeship and education fair for the northern Märkischer Kreis district.

The large white tent peaks loomed impressively in the morning sky at the BiTS (Business and Information Technology School) campus. Four days earlier, business leaders and politicians were still presenting papers here. On 18 September 2012, over 4,000 young people took over the tent city.

However, this changed on 18 September 2012, when over 4,000 young people took over the tent city at Seilersee. On this day, the first joint apprenticeship and education fair for the towns of Hemer, Iserlohn, Menden, and Balve took place there. Under the slogan “Careers in MK”, school

children and students were able to find out about 115 job descriptions and fifty study programmes at ninety-eight exhibitors.

Naturally, KIRCHHOFF Automotive couldn’t miss out. Those interested could find out about existing career aspirations or in general about the job descriptions at our stand. Since information events had already taken place a few days earlier in the schools, some visitors were so well prepared that they had even brought applications for apprenticeships or internships with them. This way they were able to secure their place in “pole position” at the start of the career in their dream profession.

Overall, the “Careers in MK” apprenticeship and education fair was a successful event for the visitors as well as the exhibitors. Many interesting conversations took place and contacts were made.

It was clear for everyone—exhibitors, organisers, and participants—that this was not a one-off. Next year it will probably once again mean “see and be seen” or even become “apply and be selected”.

Daniela Deutscher



Attendorns Mayor Wolfgang Hilleke and Managing Partner Arndt G. Kirchoff (background, in the centre) are listening to the KiCoKids proudly performing their song in English and German.

Training in a different way

Communication and presentation training at Rivius secondary school.

On 23–27 August 2012, 120 newly qualified sixth form pupils from Rivius secondary school had the opportunity, as part of their induction, to take part in a communication and presentation training programme. Tatjana Schutte, from the personnel development, marketing, and training department, carried out this training programme in conjunction with the co-ordinators for study and career orientation at Rivius secondary school.

In workshops each lasting 3.5 hours, communication situations were reviewed and analysed using various theoretical models—from the sender-receiver model to Friedemann Schulz von Thun’s four sides of a message model. It was noticeable how often

people hear with the “relationship ear” and how sensitively we react to non-verbal signals.

The ad-lib speech was a particularly tough challenge: the requirement was for each pupil to speak freely for one minute, beginning the speech with the end of the previous speaker’s speech and using predefined words such as “presidential election” or “cheekbone fracture”. To get this exercise up and running, participants had to concentrate and at the same time quickly incorporate the associations whilst speaking without notes.

During the day, pupils also learnt the importance of listening to the person they are talking to. Active listening is a

key foundation for successful communication. The focus of the second part of the workshop was on rhetorical techniques for voice modulation or mime and ways of using gestures to accentuate presentations. The structure of a successful presentation was drafted as an example and it was shown how advisable it is to always have a “plan B” up your sleeve.

The pupils really enjoyed listening and taking part, and at the end they had learnt a great deal for life, and not least about themselves, too.

Tatjana Schutte



Personnel Developer, Tatjana Schutte, introduced 120 pupils from the Rivius secondary school in Attendorn to the topics of communication and presentation on 23, 24, and 27 August 2012.



Since 3 September 2012, the corporate day-care centre under the management of Melanie Höffer (CJD Olpe) has been open between 05:30 a.m. and 6:00 p.m. Thirty children in two groups (Group I: 20 children between 2 years and school age, and Group II: 10 children between 0 and 3 years) play here on a total surface of 310 m2. With the expansion, CJD Olpe was able to employ three new qualified employees and increase the working hours of two additional employees to full time.

Success story of the “KiCo Kids” day-care centre

Attendorn. Extension of the corporate day-care centre after just one year.

On 30 October 2012, the extension to the corporate day-care centre was opened in the presence of numerous guests. Thus, managing partner, Arndt G. Kirchhoff, welcomed the deputy mayor of Attendorn, Martin Vollmert, Bundestag member, Dr. Matthias Heider, as well as CJD (Christian Association of Youth Villages) employees and managers of other nursery schools amongst others.

Only a few months after it opened on 1 July 2011 with a maximum of fifteen children of mixed ages between 0 and 6 years, it became apparent that the

positive response would soon make it necessary to expand. So, working with the owners of the corporate day-care centre, CJD Olpe, a plan was put together and presented to the supervisory authority—LWL (State Youth Welfare Office Westphalia)—for approval. The operating licence, which has now been granted means that up to thirty children can be cared for at the day-care centre in two groups. This has doubled the number of places available.

The alterations started on 4 June and everything was completed by 15 August 2012, just in time for the start

of the new nursery school year. On 3 September, the functionally and lovingly furnished rooms were full of life. The new KiCo kids took over their new kingdom and immediately felt at home. The day-care centre will reach full capacity in 2013.

Jürgen Dröge



Info

Co-operation with schools and universities

For many years, KIRCHHOFF Automotive has been actively committed to the pupils and students in the region. Workshops on career orientation, application training, communication training, company visits, and support in various projects, for example using research and development services, attest to the comprehensive co-operation between the Company and the institutions. You can find information about career planning at KIRCHHOFF Automotive at <http://karriere.kirchhoff-automotive.de>.



KIRCHHOFF
MOBILITY

Custom-made cars—
for handicapped people.

Jelschen **REHA**
GROUP AUTOMOTIVE

60-65



REHACARE trade fair in Düsseldorf/Germany

REHA and Jelschen exhibiting together for the first time.

On 10–13 October 2012, the world's largest trade fair for rehabilitation, care, and ageing, REHACARE, was held in Düsseldorf.

51,000 professionals and experts in their own field visited REHACARE 2012 to gain information about new aids, and scientific and research findings in the six halls, which housed 851 exhibitors from 32 countries. "REHACARE continues to encourage those affected to lead a self-determined life, given all the impressive possibilities. And it shows that demographic change is not just a threat, but, thanks to efforts made by industry and science, it also offers opportunities.", commented Dr. Danner, national executive director of BAG Selbsthilfe (German association for people with disabilities, those who need care, and their relatives). In the overall assessment, REHACARE was awarded top marks: more than 95 per

cent of visitors stated that they had fully achieved the aim of their visit.

And thus the trade fair turned out to be a complete success for the car customisers REHA Group Automotive and Jelschen Behindertenfahrzeuge, who appeared under the umbrella of the KIRCHHOFF Mobility brand for the first time. The KIRCHHOFF Mobility product portfolio attracted considerable attention from automotive manufacturers. With great interest, employees from sales for mobility-restricted customers and from technical departments for developing driving and operating aids, as well as "convenience components" such as seating technology had various innovations explained to them. In addition, contacts with pension funds, professional associations, and insurance companies were strengthened. Of course, one of our priorities was also to present our

products to all end customers with disabled family members, who are either active or passive drivers.

For the first time, the sister companies REHA Group Automotive and Jelschen Behindertenfahrzeuge GmbH from the KIRCHHOFF Mobility Alliance had a joint indoor presentation, with five vehicles from different manufacturers on 130 m² demonstrating the latest modifications and products for active and passive drivers. Outside, it was possible to test drive three additional new launches: the Ford B-Max with swivel seat, the VW Caddy with lowered floor and wheelchair ramp, and the Fiat Doblo with long wheel-base and taxi ramp.

Dirk Poweleit



Impressions of REHACARE 2012

Innovations for people with disabilities

Three premieres at REHACARE.

At this year's REHACARE in Düsseldorf, KIRCHHOFF Mobility presented three new innovative vehicle modifications that will make the lives of people with restricted mobility easier.

1. The new Ford B-Max:

This vehicle first arrived in dealerships at the end of October and could be seen for the first time with a swivel seat fitted onto the original driver's seat on the driver's side. The car does not need a B-pillar and has two rear

sliding doors as standard. As a result, access to the interior is completely free and opens up new dimensions in terms of installing and implementing a swivel seat solution. The vehicle can be viewed at our location in Hilden/Germany, now that the trade fair is over.

2. The new Jelschen lowered floor with wheelchair ramp:

In contrast to other conversions, the new Jelschen lowered floor as seen on a VW Caddy is fitted with an easy fold-out ramp. This was made possible because the ramp is not locked into place using seat belt buckles. Using a new mechanism and adjustable spacer buffer on the boot lid, the ramp remains still and stable in the interior while the vehicle is in motion and thus does not rattle. The ramp can be easily unfolded by the driver on opening the boot lid, to allow the wheelchair user to roll out, without having to be released beforehand.

Neither edging nor a narrowing of the ramp tracks at the vehicle opening are required thanks to this innovative design. The ramp has a uniform track

width of up to 830 mm, which enables access to wider wheelchairs.

3. The new Fiat Doblo with long wheelbase and taxi ramp:

The new Jelschen taxi ramp conversion was fitted in a Fiat Doblo. This conversion comprises a lowered floor with wheelchair access and aluminium folding ramp, which can be moved to floor level after being folded if required. This means the original loading space including flush floor is available to the taxi driver for trips when not transporting a wheelchair user. The benefit of this solution is the fully variable usage of the minibus as a transport vehicle for wheelchair users or a fully-fledge 5-7-seater vehicle with loading space.

Both the VW Caddy with new Jelschen rear access and the Fiat Doblo with long wheelbase and taxi ramp can be viewed and tested at the Jelschen Behindertenfahrzeuge showroom in Bad Zwickelhahn/Germany.

Dirk Poweleit



Info

Current information about the Hilden site:

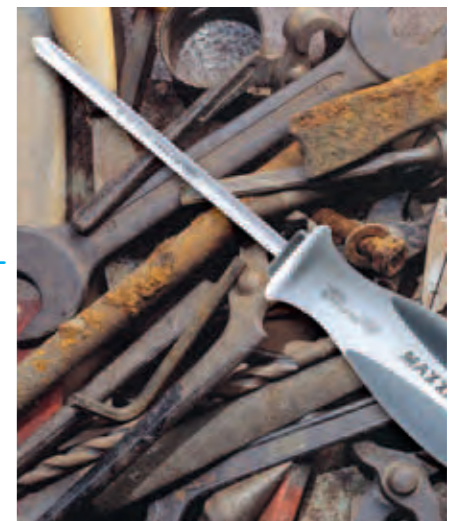
By mid-September the REHA headquarters and the REHA branch in Hilden moved to the new site (Nikolaus-Otto-Str. 5, 40721 Hilden). We will report about this in the next issue.



WITTE
WERKZEUGE

When function and
effect are in line.

66-71





left: Mark Liebholdt (Head of Sales & Marketing Witte Tools) took leave of Clive Hawkins after his longterm engagement for WITTE Tools. Above from left to right: Martin Thompsett (Sales Manager Rollins & Sons), Mark Liebholdt, Andy White (Chairman Rollins & Sons) and Oliver Fries (Sales Manager WITTE Werkzeuge)

New general distributor in the UK

Rollins takes over exclusive distribution for WITTE Tools.

After working for twenty five years as the distributor for the English market, Clive Hawkins ceased his activity on 30 September 2012 on grounds of age. We hereby would like to thank him for his long-standing commitment and the loyalty shown towards us.

From 1 October 2012, Rollins & Sons Ltd. from Harlow/London took over

the role of general distributor for WITTE Werkzeuge on the English market.

Rollins & Sons have been successfully dealing with hand and garden tools in the United Kingdom since 1866. Our new partner has a modern warehouse and logistics system, thereby providing our customers with a very high level of service.

Rollins & Sons is optimally positioned thanks to its comprehensive range of well-known quality manufacturers and experienced field sales personnel.

We are looking forward to successful and long-standing co-operation!

Oliver Fries



TOWER BRIDGE, LONDON

The PROTOP II series— number one for safety and efficiency

— The latest generation of WITTE screwdrivers.



You can't form a proper opinion about a screwdriver until you hold it in your hand and use it. Only then can you appreciate the technology that WITTE Tools has enshrined in every detail to deliver effectiveness, safety, and efficiency in tightening screws and bolts.

Continuous development since 1963

When WITTE Tools joined the market for screwdriving tools in 1963, its strategy was to focus on user benefit. With every development step taken, basic principles evolved that characterise WITTE screwdrivers today. And the PROTOP II series is no different with its grips and blades setting standards for ergonomics, transmission of power, wear, and safety.

Unique grip concept

The WITTE grip shape and surface on the PROTOP II series are tailored to handle the torque created by the hand movement optimally to the bolthead with the perfect contact pressure. In order to achieve this, a grip with ergonomic twin-cone shape was developed as result of many tests and in close co-operation with research institutes. The triangular profile corresponds to the 120-degree presentation angle of the human hand to produce the best possible torque. The curved linear contour produces high axial forces

with minimal power application. This effectively prevents the screwdriver from slipping out of the screw (cam-out effect). Even when hands are damp or greasy, these benefits are retained thanks to proprietary micro-fibres present on the grips, which ensure a safe hand/screwdriver contact.

Safe blades

The blades in the PROTOP II series are specifically designed for elasticity, in order to achieve maximum safety with minimum wear whilst tightening screws by hand. This counteracts material fatigue and prevents unexpected, dangerous shattering in the event of exceeding the load limit. Furthermore, special alloys underwent high-grade heat treatment using sophisticated processes. As a result, the blade has a consistent, uniform hardness from the outside to the inside, which increases safety and service life. Dispensing with galvanisation around the blade tip—typically black on WITTE tools—ensures long-lasting dimensional accuracy enabling precision work.

Focusing on the future

Customer benefit is at the heart of development work at WITTE. An example of this is the PROTOP II, where it is possible to integrate an insert element and thus providing

scope for future applications. Electronic chips could be embedded here for aeroplane maintenance, for example, that register whether the screwdriver has landed back in its toolbox or is still in the engine. This system allows the tool to be integrated into a digitalised safety workflow thanks to electronic identifiers.

Broad product range

The PROTOP II series with its four product lines (PROTOP II, PROTOP II PLUS, PROTOP II VDE, PROTOP II IMPACT) offers a wide application scope for varied types of use. This range is supported by the wide choice of various blade tips. Users can choose exactly the right screwdriver for the corresponding purpose. This is how the PROTOP II series provides the most efficient way of manually tightening screws.

Frank Rohlf, Jens Schönlau



Two strong brands

— Dr. Johannes F. Kirchhoff, CEO of the FAUN and ZOELLER groups of companies, on the financial year 2012.



The refuse collection vehicle, lifter and sweeper divisions of our group of companies have performed pleasingly in a fiercely competitive market. Orders from Eastern Europe in particular helped the companies succeed.

And we continue to follow the successful course of the FAUN and ZOELLER brands. Both companies are involved in their main markets in Europe on the sales side as completely independent sales and service partners. The consciously developed brand identification of both companies enhances the characteristic features of both suppliers. FAUN continues its across the board brand policy as a competent, innovative, reliable manufacturer, and

will be acting in the market in future under the combined brand message **“ZUVERLÄSSIG FORTSCHRITTLICH”**. ZOELLER, on the other hand, speaks to its customers as a sound, technically competent, solid partner, reflecting this pragmatic approach in its message, **“Technik entscheidet.”**

The two companies also add value through bundling their research and development work, with a joint Product Steering Group“ devising joint solutions for effective resource logistics. Alternative drives for bodies, lifters and chassis will cut energy use and emissions considerably, especially in waste collection. The fuel used and travel costs involved could be reduced considerably. The FAUN DUALPOWER

and ZOELLER E-Lifter series, for example, complement one another ideally to give a complete low-emission fuel-saving package.

At their production plants, both brands are working to implement processes to increase productivity sustainably. FAUN’s works at Valence and Osterholz-Scharmbeck use 5S programmes or the FAUN process system (FAPS). In this project we get support by Hitoshi Takeda, the Kaizen Guru from Japan. ZOELLER is opening a new site in Poland in 2014, around 17 km from its existing site at Puck, which meets the latest requirements. One thing both companies have in common is that they are doing this to make themselves more competitive.

SERVICE

When it comes to service, the emphasis is on fast, nationwide service. FAUN and ZOELLER use a joint service strategy. Just one visit to a service centre can be used to repair and service bodies and lifters at the same time, saving time and money.

In taking this action, we are making our group more efficient and promoting satisfaction and benefits for our customers.

Yours most warmly

Dr. Johannes F. Kirchhoff



FAUN
KIRCHHOFF GROUP

ZUVERLÄSSIG FORTSCHRITTLICH

74-101

**TOP
100
2012**
Top-Innovator





Innovate ideas are combined within the new VARIOPRESS and the ROTOPRESS DUALPOWER.



Georg Sandkühler (Manager R&D), Patrick Hermanspann (Managing Director FAUN) and Leif Börger (Engineering) are receiving the prize TOP 100 Innovators by Ranga Yogeshwar (Mentor of the initiative).

One of the best

FAUN was named one of the TOP 100 Innovators for its outstanding development and innovation work this year.

“At the end of the day, after all, the way disposal vehicles work and the technology and equipment they have should also please those who use waste collection vehicles and sweepers day in, day out: the drivers and loaders who keep our environment, our cities and roads clean at all times,” is how Dr. Johannes F. Kirchhoff, FAUN’s CEO, describes what drives development at his company.

It’s not just a vehicle’s body or lifter FAUN is thinking of here, but the chassis too. A holistic approach is what’s required. This holistic thinking can be found above all in the **ROTOPRESS DUALPOWER**. This hybrid refuse collection vehicle was designed as a whole to gather waste and valuable resources while collecting, and less as a road vehicle travelling long distances. FAUN uses the DUALPOWER electrical drive in hybrid mode and the

vehicle’s transmission on long road transport journeys. The braking energy generated on its route from one pickup to the next is recuperated and saved in supercaps and used when it next speeds up via the electric motor. In the collection process, both refuse collection vehicle, body and lifter are electrically operated. DUALPOWER trucks cut fuel consumption and CO₂ emissions by more than 30 percent, and noise emissions from 106 dB (A) to

91 dB (A). Because it is so much quieter when collecting refuse downtown, DUALPOWER trucks can also be used early and late in the day. Fourteen customers are already using this top innovation service across Europe. FAUN is also involved in innovative design with the new **VARIOPRESS**. Presented at IFAT in Munich this year, this neat container version with its stable frame structure will be in series production from 2013 onwards. Available

with ribbed bodies or smooth walls, this model is 300 kg lighter than its predecessor ribbed model.

So it’s no great surprise that FAUN is rewarded for its outstanding wealth of invention.

Claudia Schaeue



Going with the flow

FAPS (FAUN Process System) gets up more speed.

What is work? Work is standard activities plus improvement: that's the starting point on which the FAPS team works.

The FAPS core team is now 20 strong, and call on other specialists as required; and the FAPS steering team (comprising the management, FAPS management and FAUN Umwelttechnik managers) gathers, collects and decides on ideas for projects to start on. We are assisted in this process of change by coach Hitoshi Takeda, SPS Japan. This now world-famous 'kaizen guru' has already assisted other companies

with SPS (Synchronous Production System) and worked with staff to increase productivity in the past. We'd like to present two projects we're working on at present in more detail:

1. Order picking area project

One team is currently working on setting up an order picking area for the VARIOPRESS/POWERPRESS assembly line.

Before:

- All materials were provided on the line via a kanban

- Staff went and fetched their materials themselves
- This meant staff spent a long time going and looking for things

Now:

- Each cost centre and work area has its own materials trolleys
- Logistics staff provide materials trolleys as and when required
- A team from design and job preparation handles a list of parts list and work schedule errors occurring each day



Before

Now: picking area and pre-assembling

Benefits:

- Saves time
- More efficient (milk run system: procurement and distribution logistics, materials are topped up in quantities as they are used)
- Less wrong parts
- Stock 0.5 day's requirements
- Less counting required
- Internal client/supplier principle
- Transport kanban minimises costs

One staff member on each shift packs the order picking trolley with the materials required. One materials trolley is provided for each body and workplace. In other words, the body line moves on, and the materials trolley is already there. Project team manager and stores manager Ronny Lössner says, "Staff pack a body trolley every four hours or so. Each trolley takes about two hours to pack."

There are around 16-20 order picking trolleys in use on the assembly line, as they are working on many different cost centres at once sometimes.

"Assembly staff get the materials they need and pre-assembled modules in the right quantities, at the right time, at the right workplace, so they can concentrate entirely on their work. This saves a huge amount of time and increases productivity", is how Björn Küpper (VARIOPRESS/POWERPRESS assembly manager) sees the new order picking areas. The order picking area is divided into an inside and outside track and pre-assembly for VARIOPRESS and POWERPRESS units.

The inside track puts complete containers together, plus rear end sections, through to ready to mount bodies. The outside track mounts ('marries') bodies to chassis, and ends with commissioning and finishing. Pre-assembly assembles modules or difficult option components in advance, for example, so assembly workers only need to fit components, without having to complete them themselves. VARIOPRESS/POWERPRESS assembly works as a model line. Once implemented successfully and sustainably, this will be tailored and rolled out to the other assembly lines.

2. Display production progress project

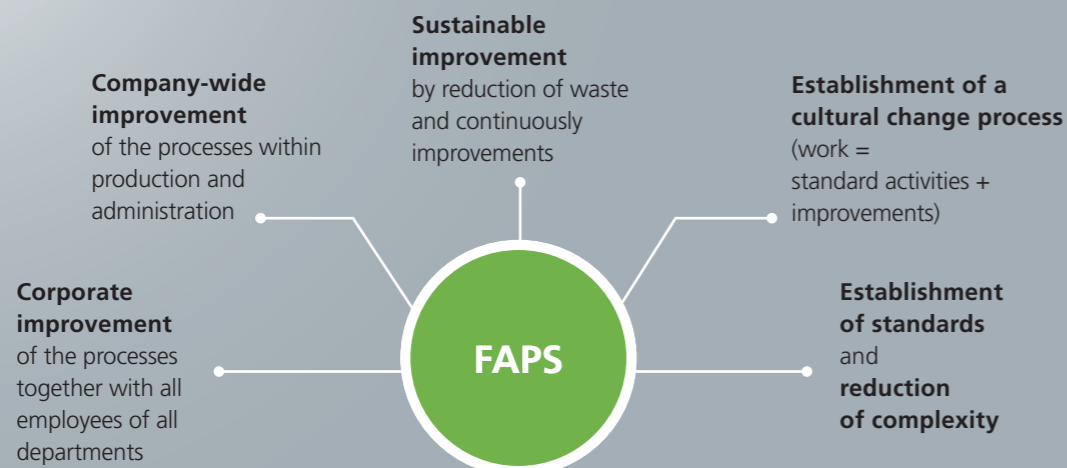
One ambitious project is making how production is progressing and materials are flowing in production. Where are materials going, and how far have they got? Based on an idea from the KIRCHHOFF new talent workshop in April this year, 13 big boards have been set up at the works. Each floor plan shows you precisely where you are in the 30,000 m² hall, and explains the major working procedures in five steps.

As well as these two projects, staff are also working on other issues to improve processes which are a breath of fresh air and can be used to keep on picking up speed, benefiting the customers and hence also the company itself.

Claudia Schaeue



FAPS. What's behind.



In the land of smiles

FAUN Group invests in its own site in the Middle Kingdom.

Around one and a quarter people live in the land of smiles, or around one-fifth of the total world population. There are 87 mega-cities, with more than 5 m inhabitants, with countless high-rise buildings towering into the sky. By way of comparison, Berlin, the largest city in Germany, has 3.4 m citizens. Which means China is also number one in the world when it comes to generating waste.

And it's precisely for these mega-cities that FAUN aims to market sweepers and disposal vehicles. Protecting the environment has long been a hot topic in Asia too. The city council wants to strengthen municipal disposal companies. Chinese cities will be generating 184 million tons of waste by 2015, of which 82 percent will be processed in the next time and 35 percent inciner-

ated. Major waste incinerators and in-fill sites are planned to turn waste into energy. At present, only 70 percent of municipal waste is collected, and only 60 percent processed. Recycling is mostly in the hands of 'freelancers'. Recycling levels are still low, but rising, as more and more private households are sorting their waste. China aims to move from unlovely waste plants as intermediate storage facilities towards disposing directly via refuse collection vehicles.

Frank Schulze, Managing Director China, thinks the ROTOPRESS refuse collection vehicle and VIAJET sweeper are the right choice for China in a first step. First of all for the necessary product homologation the units are shipped to the Far East as CBBs (Completely Built Bodies), where they are put onto domestic chassis and com-

pleted locally in the new raised Joint Venture. The for the local production site designated WFOE (Wholly Foreign Owned Enterprise) under the name of FAUN Environmental Technology Suzhou Co. Ltd., has been registered and after the successful product homologation the production line at the KIRCHHOFF site in Suzhou will start.

Setting up a plant in China is FAUN's first step towards moving into the Far Eastern market. The local market offers high growth rates and will be followed by upcoming activities of expanding into South-East Asia.

Claudia Schae



Thank you!

Burkard Oppmann, Director Sales Germany, and his sales team are ending 2012 with orders received for around 700 refuse collection vehicles and sweepers for the German market.

FAUN Services was also able to add 80 new VARIOPRESS and POWERPRESS models to its vehicle fleet.

The whole FAUN team would like to thank our customers most gratefully for their trust in us once again this year. Together, we have put some innovative disposal vehicles on the road.

Extracts from our order book:

Edenharder [city cleaning and waste management]

- Models: six FAUN-ROTOPRESS (521L and 523L)
- Region: Neumarkt in the Upper Pfalz

- Delivery: 1st quarter 2013
- Fractions: DSD & biowaste

Schönmackers

- Models: 13 POWERPRESS (522) & one POWERPRESS (530)
- Fractions: DSD
- Delivery: 2012
- What's special about this? All-FAUN vehicle fleet!

SITA Germany

- Models: ten POWERPRESS & 20 VARIOPRESS
- Regions: nationwide Germany
- Fractions: general, bio and DSD waste
- What's special about this? New disposal contracts!

We'll be putting our vehicles on the road in 2013

Or, to put it better, onto our customers' rounds, so they can see the benefits and characteristics of FAUN's disposal vehicles close up for themselves. FAUN will be sending a number of ROTOPRESS and FRONTPRESS units on a demonstration tour of disposal areas in 2013.

So book your personal appointment with your salesperson today!

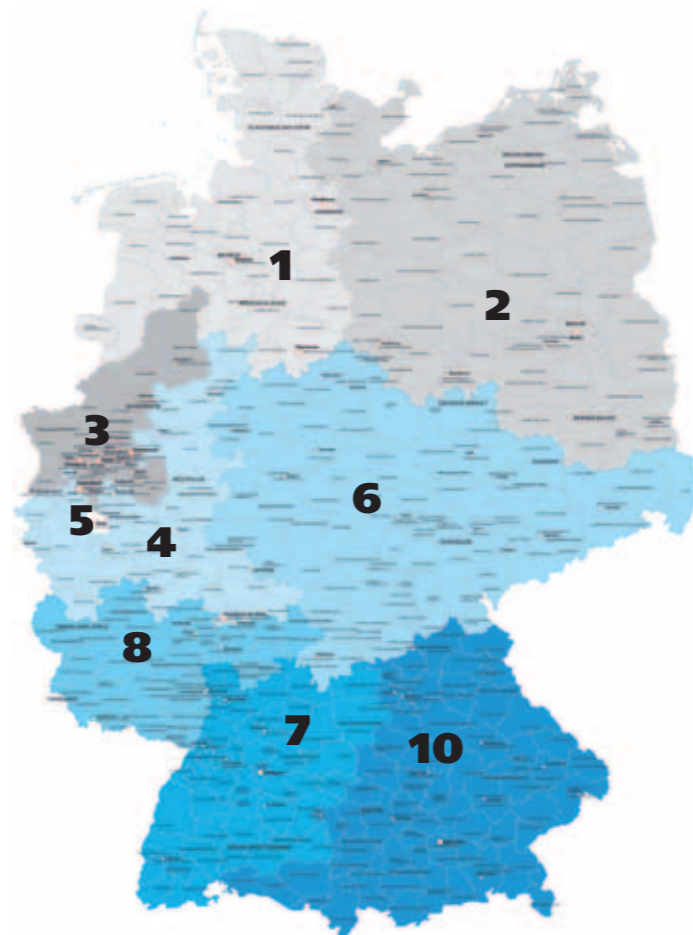
Claudia Schauge



Sales representatives Germany

Where to find us

- 15. – 16.03.2013:** MAN Trucknology Days, Munich
- 15. – 21.04.2013:** BAUMA, Stand F10.1013/1, Munich
- 30.04.2013:** local authority vehicle experience, Wörth
- 29. – 30.05.2013:** KOMMUNAL LIVE, Göttingen
- 24.09.2013:** local authority vehicle experience, Munich



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New on the front line: Uwe Bußmann

Our new sales representative in Germany.



To enable us to support our customers in the Eastern Federal States of Germany, FAUN has found an experienced salesman in Uwe Bussmann. Born in Saxony-Anhalt, he's been on the road selling FAUN sweepers and the FRONTPRESS between Brandenburg and Thuringia since August. Uwe Bussmann isn't unknown in the industry, either: he's been working for different disposal systems companies since way back in 1991, and has built up an extensive customer base. When asked what he thinks is

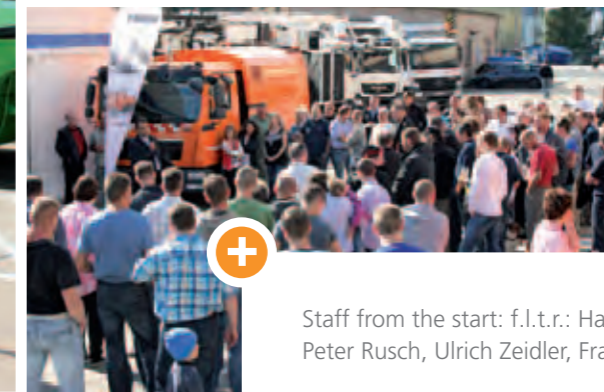
so special about FAUN, he replies, "It's great to be able to offer customers genuine German vehicles once more. With FAUN, you get to experience the whole process: from ideas to development through to actually building the vehicles themselves, seeing the machines take shape as steelwork and being assembled complete."

We'd like to really welcome Uwe Bussmann, and may his performance always shine!

Claudia Schae



The FRONTPRESS is on tour through Germany in 2013.



Staff from the start: f.l.t.r.: Harald Schädlich, Peter Rusch, Ulrich Zeidler, Frank Müller and Mirco Degen

Staff from the start

Helmut Schmeh, Managing Director FAUN Viatic GmbH, looks back.

"2012 was a steady year as far as we were concerned. We're satisfied with our sales, and how we need to put the projects we've started internally on the road," is how Helmut Schmeh summarises the year's business.

What he and his 100-strong team have in mind is restructuring production processes. "We need to be even more flexible and work constantly to improve quality." And Schmeh continues: "The products we make carry the "Made in Germany" seal of quality. But we need to be more productive

in comparative international terms if we are to remain competitive." These restructuring processes are driven by FAUN Viatic's 5S team; and the VIAJET series classes 6 and 7 are being switched completely to the new model series.

Tidy and clean for 20 years

The team spirit and inventiveness of the sweeper makers from Grimma was something tangible this late summer. For 20 years now, they've been making sweepers in these halls which have gone out and conquered the world.

At the anniversary party for staff and their families, Helmut Schmeh, Grimma's Lord Mayor Matthias Berger and the staff themselves could look back with pride on the past 20 years. There were silver medals of honour for the staff that'd been there from the start. And a colourful programme for young and old rounded the party off nicely.

Claudia Schae

A place of peace

— The world's largest cemetery park uses a VIAJET.

It's the world's largest cemetery park, at 391 hectares. In the district of Ohlsdorf in Hamburger, green spaces, last resting places, historic tombstones and sculptures extend side by side. And Hamburger Friedhöfe AÖR tends this jewel lovingly.

So, when putting out an invitation to tender for a new truck-mounted sweeper, they were also very con-

cerned as to how much vacuum power a machine had and how noisy it was.

The contract ultimately went to a VIAJET 6 RH. Built on a Mercedes-Benz Atego chassis, its hydraulically operated sweepers make it particularly quiet—without compromising on suction power, thanks to its FAUN air circulation system. This sweeper also has a rear end suction device for cleaning

gullies and waste bins. So the VIAJET works its rounds to the management's satisfaction in this extensive park of peace.

Claudia Schae



High-performance:
The rear end suction device



Optimising collection rounds just by clicking a mouse

— J. Ochsner AG is turning into the leader of the pack for telematic systems.

This Swiss company is the competence centre for weighing, identifying and now telematics too. It fitted 14 VARIOPRESS trucks with its new Ochsner telematic system (OTS) for REAL, its customer in Lucerne.

FAUN delivered 14 VARIOPRESS trucks to Swiss company REAL (Recycling Entsorgung Abwasser Luzern) in August. A great order of which Ochsner's director Tim Collet and his team are justifiably proud. These rear loaders on Mercedes Benz Econic chassis and 22 m³ body are REAL's first vehicles, and are used to collect green, domestic and special waste.

Made at FAUN's works at Osterholz-Scharmbeck, J. Ochsner AG of Urdorf then customised the trucks to suit the requirements of the Swiss market and

integrated its telematics system. What REAL wanted were vehicles on which routes could be displayed and optimised: so Ochsner and its partner XTrack developed the OTS.

OTS – Ochsner Telematic System

OTS is used to record data and track and optimise collection vehicles' routes holistically. With their integrated navigation system, trucks can follow their collection rounds precisely thanks to GPS coordinates. OTS takes operating data from vehicles and sends it online to the OTS server, which can prepare that data for processing.

OTS gathers the data required from the truck body (CleanOpen interface), chassis (FMS bus) and weight and ID data (CleanOpen interface) and links

it to GPS coordinates and time data. Data from the body and weight and route data is processed, displayed on the easy to read display and then saved, so it can tell if a truck is departing from its preset route or leaving a collection area. By preselecting defined areas, such as incinerator plants, workshops/service depots, a vehicle's status (entering and leaving areas, emptying body, start/end round and service) can be identified at all times. OTS and the FAUN-Control-System (FCS) complement one another perfectly. The operations manager can then generate reports as required (e.g. fuel consumption) in Excel.

Claudia Schae



During the acceptance procedure in Osterholz-Scharmbeck the responsible person from REAL, Ochsner and FAUN came together.

German-Czech nickel marriage

The Croy company celebrated its 20th birthday, and FAUN looks back with pleasure at twelve years of partnership.

If you go to Prague, the Czech capital, and drive west, after 60 km, you pass the little town of Rakovnik vorbei. Rakovnik is home to the Croy s.r.o. company, which has been an official FAUN dealer for twelve years.

This Czech company was founded by Max Prinz von Croy and Ladislav Vybiral in 1992, and it celebrated its 20th birthday this year.

Today, Croy employs 50 staff. As well as FAUN refuse collection vehicles and sweepers, they also sell Mercedes-Benz vehicles, Schmidt sweepers and winter service units and Mulag mowers and Kahlbacher winter service units.

FAUN and Croy's partnership is here to stay. The Czech dealer is our oldest standing and most successful dealer. In its anniversary year, Croy has ordered six ROTOPRESS, two VARIOPRESS and a sweeper to date. Croy's customers include the Golden City of Prague, for example.

This is due not least to working together closely at management level and in quality management and sales, says Jürgen Thirase, who as the Export Manager responsible visits the site every two months or so. "What I really appreciate is how open and honest it is working with Croy," he says. Croy's managing director Ladislav Vybiral adds: "We really appreciate working

with FAUN. FAUN's products are a major part of our sales range. Our partnership is built essentially on product quality, amazingly reliable vehicles and FAUN's competence."

Here's hoping this partnership lasts for many more years to come!

Ina Westermann



Handing-over ceremony between sales representative Duncan Angus (left) and the team of North Lanarkshire.

Single point of contact key for scottish council

North Lanarkshire choose FAUN ZOELLER refuse collection vehicles.

FAUN Zoeller is creating added benefit for local authorities looking to streamline their refuse collection service through a single point of contact.

For several years North Lanarkshire Council has used Zoeller branded lifting systems and been impressed with the performance of the equipment, with more than half of its fleet using the technology.

North Lanarkshire Council has placed an order for 13 VARIOPRESS II trucks with Zoeller lifting systems to replace part of its ageing fleet. The VARIOPRESS was selected following a competitive tender process based on quality and price. This and a combination of in-depth training that can be tailored to individual requirements

was also cited as a motivating criteria. Ken Wilson, head of land services at North Lanarkshire Council, said: "Our experience with Zoeller lifts plus excellent reports from other Scottish councils already using VARIOPRESS RCVs were key motivators in selecting the trucks. That fact that we could source everything we needed from one trusted point of contact was the icing on the cake.

"I have complete confidence that the amalgamation of the two established brands will deliver all we need in terms of an efficient collections service. The training received so far has been impeccable and will be instrumental in the long term as we enable our engineers to take our maintenance needs in-house.

"Why we selected the VARIOPRESS over other systems was in part due to its innovative on board weighting system that informs drivers of the exact load of carriage and provides cut out when the vehicle is fully loaded. We realised that this would allow us to better understand load capacity, allowing for a larger volume of waste to be carried and cutting down on the number of journeys taken."

Regional Account Manager Duncan Angus said "We are pleased to enhance our existing relationship with North Lanarkshire Council by supplying them with not only bin lifters but also new RCV bodies".

Kristie Sanderson



Export Sales Manager Jürgen Thirase and Managing Director Dr. Armin Vogel (left side) congratulate the team of Croy.

Warrington go for more

Council once again goes for FAUN ZOELLER.

Following the successful order and delivery of three VARIOPRESS 22 m³ bodies complete with ZOELLER Rotary lifter and Acti-fit air load system have now been seamlessly rolled out across Warrington and thanks to a detailed training programme council staff were already familiar with the vehicles when they arrived.

For Warrington BC it was vital that their RCV operators fully understood how the vehicles worked and were able to use them independently, which is why FAUN-Zoeller's products and its tailored training courses appealed to the council.

Warrington BC have been using ZOELLER lifters for many years and by investing in our RCV bodies as well,

they now have an efficient waste collection and disposal vehicle.

David Keane, executive board member for environment and public protection, said: "We chose VARIOPRESS following a competitive tender process as it was the most fit for purpose vehicle for the council's waste operation, being economically advantageous".

"The vehicles make our collection rounds more fuel efficient and save time as our drivers now take fewer return trips to the waste disposal plant. The support given by FAUN ZOELLER has also been fantastic".

Operators were invited to visit their production facility during build, which has given them a feeling of ownership. Both operators and workshop mechanics have received in-depth training which allowed them to get to grips with the vehicles before they were even delivered.

As part of the deal our waste and recycling team has undergone extensive training with FAUN ZOELLER's in-house experts, who are all leaders in their field.

Marshall Fleming, UK Sales Director for FAUN ZOELLER said: "The VARIOPRESS is one of our most popular designs, as it is versatile enough to be used for both waste and recycling collection rounds. We are pleased that the council have added more FAUN ZOELLER's to their existing fleet, and hope it is the start of a long working partnership".

Kristie Sanderson



Two different recyclable fractions into two separate chambers.



SELECTAPRESS DUO

The independent watertight dual container.

In 2011, FAUN Environnement decided to extend its product range to include a vehicle with two independent containers. Each container has its own discharge plate, its own pressure plate, its own compression and rear end systems, as if it was two refuse collection vehicles.

We've christened this new vehicle SELECTAPRESS DUO.

There is absolutely no way the two types of waste collected can get mixed with one another. Either container can be emptied first or last. No waste is lost when emptying. The SELECTAPRESS DUO's rear end can take any kind of triple lifters using the standardised European interface.

Dual chambers

The two independent chambers mean the two types of waste can be separated completely, with no risk of mixing.

Compression

Each chamber has its own compression system, its own discharge plate, pressure plate, rear end and container for loading and emptying each type of waste separately. The compression rate for each chamber can be set separately.

Emptying at will

Either chamber can be emptied independently of the other while collecting refuse. Either chamber (right or left) can be emptied first, so collecting waste can be optimised to suit.

No waste lost while emptying

Optimising and adding value to sorting waste. ADEME [the French Agency for Environment and Energy Management] charges are based on how well waste is sorted. Absolutely no waste is lost here, so costs can be reduced visibly.

And, of course, the SELECTAPRESS DUO comes with FCS (FAUN Control System). It can also be fitted with Cin-Energie [kinetic (regenerative) braking]. This system recovers the energy generated each time a vehicle brakes and can be used for lifting if desired without using any more energy.

Since then, FAUN Environnement has put more than 50 SELECTAPRESS DUOs on the market in France and the UK. Now we're taking the SELECTAPRESS DUO to the next level, shortening the rear end and reducing its weight so it can be marketed in Scandinavia in general and Denmark in particular.

So Valence is still the FAUN Group's centre of competence on SELECTAPRESS.

Etienne Blaise





AGMS is showcased at Modern Day Marine

Quantico, Virginia, USA. Flexible solution to roadway deployment launched at leading industry expo.

Innovating design for Singapore

Wareham, Dorset. Bespoke vehicle commissioned for Singapore tender.

Fostering relationships is key to securing agreements in the long term procurement cycles of the defence industry, and FAUN TRACKWAY has recently taken emboldening steps in a prospective deal with the Defence Science and Technology Agency (DSTA) in Singapore.

Having courted the nation for some time, we have now completed the next stage of a lengthy tender process on a multimillion Euro contract.

The FAUN TRACKWAY team headed up by director, Chris Kendall, hosted DSTA representatives on a two-day trial at Bovington Camp in Wareham, Dorset. They demonstrated the performance and design of two TRACKWAY units: a standard and custom-made version of the Heavy Ground Mobility System (HGMS). Both units were fitted to IVECO chassis, a long-term collaborative partner of ours.

Deployment and recovery procedures in day and night time conditions were put to the test, as was vehicular capability at navigating challenging terrains in specified trafficability trials. HGMS matting capable of withstanding loads of up to

70 tonnes underwent scrupulous testing with both the British Army MLC 30 Mastiff and MLC 70 Challenger 2 tank passing over the Trackway. There were also demonstrations on connecting and removing Trackway panels, control features and maintenance measures.

The bespoke HGMS was developed in response to Singapore's tender document. Eager to meet DSTA's individual needs, FAUN TRACKWAY commissioned a unit with an interchangeable power pack that was separate to the vehicle engine and a compatible Trackrack, crane-mounted to a 20ft flatbed vehicle with ISO twistlocks. If successful in our bid, we will be looking at rolling out manufacture of the model beyond the prototype.

An advantage of FAUN TRACKWAY over competitors is our extensive workforce, which undertakes design and manufacture in-house. Managing the whole process means we're uniquely placed in our expertise, having an inside knowledge on use and able to address any maintenance questions quickly and efficiently. The team from DSTA met engineers Gareth Williams and Robert Ewing and production supervisor Gwyn

Parry who personally designed and built the demonstration unit, and took advantage of the opportunity to put questions to the team.

Integral in our success at the trials were our associates from Export Support Team, a branch of UK Trade and Investment, who helped to facilitate the trials, prepared the site to specification and provided a uniformed presence over the two days.

Alan Jones, Project Manager of FAUN TRACKWAY, said: "The tender from Singapore represents an exciting brief for us and is evidence of the esteem our products are held in globally. The recent trials will go some way in validating FAUN TRACKWAY as a reliable and reputable partner that is able and willing to respond to bespoke client needs.

Our ability to insource the whole process, from conception to delivery, provides further reassurance that we're capable partners in supplying the complete portable roadway solution."

Rachael Hobbs

In September, FAUN TRACKWAY USA made a triumphant return to the Modern Day Marine (MDM) Expo at Quantico, Virginia.

After wowing the crowds with the Heavy Ground Mobility System in 2011, we were treated to a hero's welcome on showcasing our latest product, the innovative Adjustable Ground Mobility System (AGMS).

The launch of AGMS sets a meaningful precedent for increasing forces' capabilities through flexible products. Created for a variety of front-end loaders, AGMS opens up the choice of vehicles able to deploy portable roadway systems and offers a cost-effective solution to navigating difficult terrains.

AGMS is able to deploy and recover both MLC 70 TRACKWAY—the multi-terrain system for tracked and wheeled vehicles up to and exceeding 70 tonnes—and MLC 30 TRACKWAY—widely used in

beach-landing operations by wheeled vehicles up to and exceeding 30 tonnes—the dual application of the AGMS provides further versatility in use.

Our appearance at one of the main events of the defence diary was very well received, with Marine Corps' officers and staff enjoying face-to-face time with our talented team of engineers. For FAUN TRACKWAY USA, it was a valuable opportunity to gain feedback on AGMS and help shape our future plans by getting an insight into the technology and equipment troops are now calling for.

While the expo was much more than a lead generating exercise, we were also successful on this front too. As a result of our appearance, FAUN TRACKWAY USA is set to deliver an exclusive demonstration to the US Marine Corp at Camp Lejeune in North Carolina in December, which will hopefully mark the start of a fruitful relationship.

Michael Holdcraft, vice president of business development at FAUN TRACKWAY USA, said: "Our heritage is in providing innovative solutions that truly support our troops' specialist needs, rather than forcing them to adapt to a standard product. It's an approach our clients tell us is instrumental in helping them deliver expeditionary missions quickly and efficiently. We believe the AGMS to be a huge milestone in terms of the efficient deployment of portable roadway systems."

While the defence industry remains the bread-and-butter of our operations, exhibitions like MDM will remain an important tool as we look to expand in both the USA and further afield.

"Looking at next year's calendar, we intend to make routes into broader civilian service applications, including emergency services, fire and electrical, by publicising the dual-purpose use of the AGMS."

Rachael Hobbs





Ready for take-off

Leaving school—now what? This is the question most people leaving school face. Do we go and study at university, or do we get ourselves a solid training first? There are many different ways of getting started in business today. And fifteen young North Germans had to decide what they would do next after leaving school.

Now these fifteen have one thing in common: they've all decided to train at FAUN. Solid as a rock, but interesting and varied for all that.

Jean-Paul Berndt (trainee industrial clerk in his second year of training) and Hagen Leopold (ditto, in his first year) spoke with the new input.

Why do young people decide to train at FAUN? The answer is obvious, as far as Sascha Kansmeyer is concerned: "FAUN is an extremely interesting company, which makes no secret of the fact that it is working for the future." He and his colleague Pascal Nehls (both trainee mechatronics engineers) will never forget completing their first piece of work. The budding

mechatronics engineer felt great to have made something with his own hands.

FAUN offers young committed people the opportunity to train in the different areas an industrial company involves. You can also do sandwich courses, study for your bachelor's degree or get a taste via an internship.

How do young people find out about FAUN? Via people they know, via a radio spot or the vocational colleges in Osterholz-Scharmbeck, via the Internet and FAUN's career page on Facebook, that's how—if they didn't already know us, that is. Sarah-Katarina Grüner (a budding industrial clerk in her first year) "I've never regretted

starting training at FAUN, ever. I was able to work in a team, right from day one. OK, I started off on small jobs, but every so often they give me something more important to do, and I soon found other colleagues in the team valued me as an almost full-blown colleague."

In the Elbe-Weser triangle, FAUN has to compete with larger, better-known companies to entice staff and trainees; and it was precisely with this latter target group in mind that the [trainee campaign] was created in 2011. Marc Grube, HR manager at FAUN, says: "With our trainee campaign, we looked successfully for new talent. As the rural district's largest employer, we are very socially responsible, but we



are also always looking for good staff. Today's demographic developments mean we have to bow to the shortage of specialists and managers. The new trainees are a breath of fresh air, and we're sure we've found motivated, committed staff."

Jean-Paul Berndt looks back over his sixteen months with FAUN to date: "It's not just working for FAUN and the atmosphere at work I like so much, but everything around it too. The company offers its staff a number of basic and further training options. Even while I was training, I was involved in different courses in a wide variety of areas and company events, like the company's skiing trip. My personal highlight in my training to date was when I spent some time abroad at our subsidiary FAUN ZOELLER UK in Llangefni in Wales. I really developed a long way there, both personally and professionally. Thanks to my incredibly accommodating host family and the local team in particular, I had a great time there I'll never forget."

Once on board at FAUN, qualification matrices as part of the "Personnel Development Programme" further staff, aimed at their abilities, and help them develop. Marc Grube: "We've just launched an initiative in this area. We still have a little homework to do, but we are optimistic our staff development programme will make us some one people want to work for in future too. We want staff with the right abilities in the right positions."

"Learn, be creative and have fun." It was with these words that FAUN's owner Dr. Johannes F. Kirchhoff welcomed the latest newcomers. We're sure we will.

Hagen Leopold, Jean-Paul Berndt

Starting out at FAUN:

Warehouse logistics clerk:

Cindy Bargmann

Dispatch and logistics services clerk:

Saskia Meyer

Industrial clerk:

Michelle Kahrs, Sarah-Katarina Grüner, Pascal Puckhaber, Hagen Leopold, Colin Vajen, Tim Zimmermann

IT assistant:

Nico Reiners

Mechanics engineer:

Dennis Paltinat, Marius Vajen

Mechatronics engineer:

Jonas Bischof, Steven Ender, Sascha Kansmeyer, Pascal Nehls, Lucas Fries



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All about FAUN at www.FAUN.com

Read QR code and get it.



Between Chinese New Year and examinations

FAUN founds scholarship at famous Jacobs University.

It was as far back as 2010 that FAUN began sponsoring a scholarship at Jacobs University Bremen in the field of International Logistics Management & Engineering.

Dr. F. Kirchhoff had the idea at the time to get young students involved at FAUN to create a bridge between international management and different cultures. This international college enjoys an outstanding reputation at home and abroad, attracting students from all over the world. Like Luxue Wang, for example: this young Chinese girl applied for the scholarship in 2010, and is now studying keenly by the Weser.

Claudia Schaeue talked with the 22-year-old Luxue Wang for K > MOBIL:

C. Schaeue: What brought you to Bremen, Luxue?

Luxue Wang: as soon as I left high school, I wanted to study. The courses Jacobs University offered and the reputation of the lecturers on my course caught my eye and ultimately won me over, so I applied. And the University is still young and modern, and is in one of the top places in the CHE-Ranking (Centre for Higher Education Development).

C. Schaeue: How is the course structured?

Luxue Wang: It's a three-year course in all: five semesters direct study at the University itself and one semester as an intern at FAUN, so I'll get my Bachelor's degree in 2013. As well as myself, there are another 15 comrades from 14 different countries. So it can get very loud sometimes!

C. Schaeue: What is an everyday study day like?

Luxue Wang: I live on campus, which means I'm fully involved in day to day student life. As well as the courses, the University offers many events. We celebrate the Indian festival of light and Chinese New Year, for instance. There are many foreign students. The teach-



+ LUXUE WANG

ing is in English, and we mostly speak English amongst ourselves. They take studying seriously here, but however there's no stress, no pressure. Unless exams are coming up, that is.

C. Schaeue: And how did you come to be at FAUN, and what is your job?

Luxue Wang: awarding the scholarship makes FAUN my mentor, so to speak. During my six months at the company, I'm assigned to the Managing Director China, Frank Schulze. Thanks to where I'm from, I could help him set up FAUN's activities in China in particular. It's incredibly interesting and educational. I finally got to use what I'd heard and learned. Now I

know what project management, logistics and supply chain management actually mean in reality, and how they hang together.

C. Schaeue: What are you planning to do once you graduate? Will you be going back to China?

Luxue Wang: Yes, I think so. I wanted to work for some years and build up some work experience and then go for my Master's.

C. Schaeue: What have you enjoyed, and what have you missed?

Luxue Wang answers with a laugh: I really miss Chinese food! Otherwise,

ABOUT

Luxue Wang. The 22-year-old, born in the age of the horse, comes from the North East of China, close to the big city Shenyang.

I'm enjoying the country and the freedom. I'd already been in the USA for a year before I came to college, and thought it was great getting to know other cultures.

C. Schaeue: Luxue, many thanks for talking to us, and all the best for your studies and onwards.

Claudia Schaeue

Chinese bratwurst hire are hot top dogs

FAUN's first summer Olympics were marked by good mood, team spirit and top sports performance.

One hundred and fifty FAUN staff came together at the FAUN Arena in September to measure their strength in a different way. Invitations had gone out to staff at our Osterholz-Scharmbeck site, German sales and service centre.

Twenty-five teams signed up for the competition in all, including teams with creative names like "The Pressure Worms", "The CADetten", "The Finishers" or even "The Hotliners".

There were ten disciplines they had to play in: whether draining a beer mug, seeing how far they could throw a beermat, estimating distances or riding a bike backwards, these Olympians had to show muscle power, skill

and memory power. But, above all, team spirit. Peter Höning, Managing Director of FAUN Umwelttechnik: "We wanted to organise an event for staff where they could have fun and get to know one another better in their teams and/or departments." Patrick Hermanspann, also Managing Director at FAUN Umwelttechnik, adds, "The aim was to bring people together, but also to get them to see beyond their own departments. So we were even happier to have colleagues from sales and the service centres there too."

The winner's cup and a cheque for EUR 500.00 for a joint department event were won by the "Chinese bratwurst hire" team, with 150 points (FAUN Services team—ed.).

The Olympic flame may have gone out after four hours, but the teams picked up the idea of Olympic fair play together.

Thanks to everyone who was there, who helped and mucked in. You're the tops!

Claudia Schae





Impressions 2012

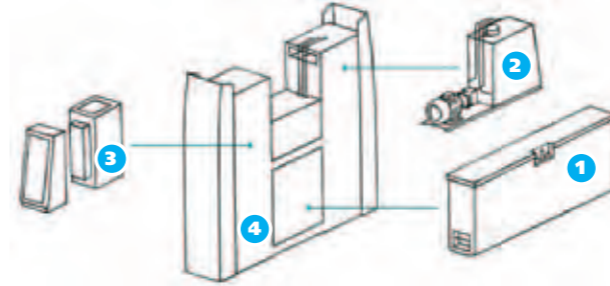


 **ZOELLER**
KIRCHHOFF GROUP

Technik entscheidet.

102-107





An innovative product:

MEDIUM XLS/E-DELTA

An innovative product: an electric automatic lifter, fitted together with E-PTO benches on a refuse collection vehicle. E-PTO is an electric drive system which replaces a truck's secondary drive. It comprises a battery module (1) (40 kWh lithium-ion battery), a hydraulic module (2) and an electronic module (3), all fitted together in a framework module (4). In this case, the hydraulic module only handles the vehicle's usual hydraulic functions, but not the lifter.



Technology decides

The ZOELLER Group can look back on a successful year in 2012. Tackling the Russian market successfully helped make it a successful one.

Volker Schröder, the ZOELLER Group's Chief Financial Officer, says, "Our product range today includes 300 different lifter versions, which can empty all the usual waste containers from 25 l to ten m³. We continued to expand our lifter segment in 2012. What people want from our lifters has changed over time: as well as low-dust, low-smell and low-noise containers, lifters have to meet high safety at work requirements and provide ergonomic

controls for operatives and minimise operating costs to maximise economy. With a modular system, you can be flexible in giving your customers what they want and cutting down delivery times. We make all our lifter systems ourselves, so we can fit them to all leading manufacturer's disposal vehicles quickly."

Quiet but highly efficient electric lifters are where the future is. The ZOELLER

Group launched its first electric lifter in 2010—a milestone in development. Meanwhile, there have been decisive improvements here. The power drives take their energy from special battery modules housed in the vehicle or the chassis battery, making the loading process independent of the engine, which can save up to 33 percent fuel, depending on what hybrid system a refuse collection vehicle is using and where it is used. It is also quieter,

because the engine runs at a slower speed and its electronic systems make the lifters gentler to operate. Other combinations of power lifters with hybrid or electric vehicles are available, so new zero-emission, silent, highly efficient disposal vehicles are now a possibility.

Meeting these requirements calls for thorough, systematic engineering, which is based at the company's

headquarters in Mainz-Laubenheim. "ZOELLER. Technik entscheidet." is the slogan under which state of the art CAD systems create mature solutions. Just how creative our engineers and staff are is evident from the many patents the company holds.

Alongside its lifter product range, the ZOELLER Group has focused on expanding the refuse collection vehicle market. Thomas Schmitz, the ZOELLER

Group's managing director, says, "We focused on expanding our sales activities in our core markets in 2012, and structured our processes so we could perform even better. I'd like to thank our customers and business partners on behalf of the staff of the ZOELLER group."

Volker Schröder

Special celebrations: 20 years of ZOELLER SYSTEMS s.r.o.

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— ZOELLER SYSTEMS s.r.o. of Ricany looks back on 20 successful years.



Success story: The both Managing Directors Karl-Heinz Wider and Eva Beckerova

This Czech company started trading when it was founded as a wholly-owned subsidiary of ZÖLLER-KIPPER GmbH on 1 November 1992.

After looking for a home for more than a year, a suitable property was found in Ricany. The infrastructure of the Greater Prague area, accompanied with well-trained German-speaking staff were both major influencing factors in choosing to locate here.

Horst Becker, our 'man from day one', worked as department manager at ZÖLLER-KIPPER GmbH in Mainz for many years. To begin he started out

with four staff. In the years that followed, the company grew steadily to become the main supplier to ZÖLLER-KIPPER GmbH Mainz. Just eight years after it was founded, the company now employed over 80 people.

Having invested in expanding in 2008 and 2012, ZOELLER SYSTEMS s.r.o. now has 7,000 m² of production space on call. The company currently has plans to employ 180 staff in total by the end of 2013.

Lifters and refuse collection trucks Ricany makes all the steelwork components for the ZOELLER range of lifters,



Technik entscheidet. Refuse collection vehicles from ZOELLER.

In addition modules for refuse collection vehicles like complete loaders etc. are also permanently on its books.

The latest horizontal and vertical processing centres, combined with robot welders, operated by highly-skilled staff, ensure maximum quality, high-precision components and so guarantee the final product. The wide range of products calls for a high level of flexibility to cover customised vehicle fleets and organisation to match.

ZOELLER SYSTEMS s.r.o. don't just make individual components though: they are intensively involved in the Czech

and Slovakian markets for refuse collection vehicles and lifters, assembling the products they sell in Ricany.

Eva Beckerova heads the commercial side at ZOELLER SYSTEMS s.r.o., whilst Karl-Heinz Wider is in charge of production and technology. Both are proud that they and their team have come to dominate the market in the lifter segment over the years. Together with the FAUN and HALLER brands, ZOELLER leads in refuse collection vehicles and lifters in the Czech Republic and Slovakia, supporting, enhancing and expanding this position via a nationwide service network which

ensures our customers can get help on all technical aspects of our equipment fast at any time.

Karl-Heinz Wider



Merry Christmas
and a Happy New Year

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