

K»MOBIL

THE KIRCHHOFF GROUP MAGAZINE



For quite sometime already, the KIRCHHOFF Group has supported the social lives of their plant employees through donations and sponsorships, whether in the areas of development, education, arts, culture or sports. For more see page 18 et seq. »

Imprint

K>MOBIL
the KIRCHHOFF Group magazine

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Dear customers and friends of our group of companies,

Dear employees,

The development of the global economy in the first few months of 2016 indicates moderate growth, which at 3% is slightly reduced and continues to lack momentum. According to the Ifo Index, the economic climate has deteriorated in all regions apart from Oceania, Asia, and Latin America. The Ifo Index for the euro area fell once more in the second quarter

Shape the future—identify and seize opportunities instead of complaining

but still exceeded its long-term average. For the rest of the year, the analysts expect the values to improve again for the USA in particular, while remaining stable for China and Europe. Development in Germany shows a solid albeit moderate growth. The forecasts for the individual divisions of the KIRCHHOFF Group continue to be pleasing, following a positive year end in 2015.

The failed policy of the European Central Bank (ECB) is a cause for concern. For more than a year, the ECB has been injecting an initial amount of 60 billion Euros and then from March as much as 80 billion Euros each month into the financial markets through the purchase of bonds and even government bonds. At the same time, it has set the base rate to zero and raised penalty interest for banks. So far, however, it has failed to achieve its objectives of weakening the euro, increasing the rate of inflation, and combatting the chronically weak growth in the euro zone. Quite the opposite. The intention to allow time for policies to be reformed has had exactly the opposite effect. Enthusiasm for reform has declined in the problematic countries of the euro zone. Instead, the flood of cheap money is adding to problems in those countries



Dr Johannes F. Kirchhoff

requiring reform. The low interest rate policy has become a way of providing back-door finance to the highly indebted euro states at the expense of tax payers and savers in those countries that have successfully implemented the required reforms. This will also have a devastating, long-term impact on the savings culture because the low interest rates devalue savings and much-needed retirement provisions. The ECB has thus sided with debtors at the expense of creditors, which is not a monetary policy, but a redistribution policy.

Use the opportunities of the TTIP—bring negotiations to a close

In recent months, the chances of adopting—or at least clarifying the key features—of the planned free trade agreement with the USA during President Obama's term of office have by no means improved. Documents published by Greenpeace at the start of May showed how far apart the negotiating partners still are from each other. Critics believe that the agreement will be disadvantageous for people in Europe, and that the USA "wants to take Europe to the cleaners".

Greenpeace is thus engaging in propaganda and is perfectly aware that the current status is only preliminary. However, this should not worry us. In any negotiation, the top priority for all parties involved is to achieve the best for themselves and to fight for it. Why should it be any different with the TTIP? Indeed, we expect representatives from the European side to be committed to ensuring that as many of our usual rules as possible are featured in the future standards of the US–European single market.

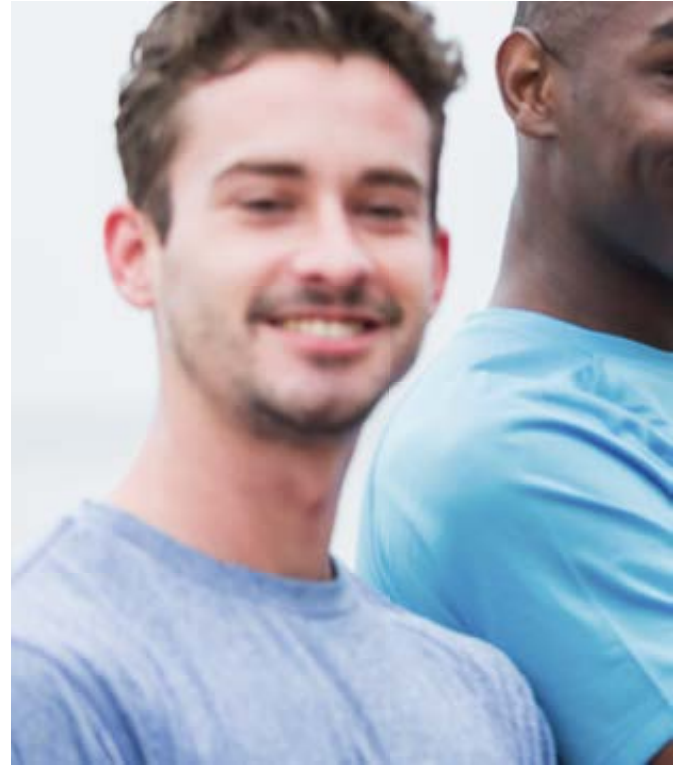
Even if negotiations are difficult at the moment and implementation is slower than initially anticipated, this does not give cause to doubt the point of the agreement.

Germany is one of the largest export nations of the world. Our prosperity is based on selling the best products competitively all over the world. This underpins our social market economy. Without competitive exports, all of our societal, social, and cultural achievements, which we quite rightly defend, would be without a long-term economic foundation and would therefore have no prospects.

The time has long passed since we were able to take it as a given that the best products could only be manufactured in Germany and that we were already competitive simply by virtue of our location. Today, other countries are also able to produce and distribute products of equally high quality—and at much lower prices on account of their economic conditions. It is therefore key to the future of Europe to do everything possible to ensure that our economy remains competitive on the world market. Free trade agreements are of fundamental importance in this aspect as we depend on the unimpeded movement of goods.

Currently, one third of the global flow of goods takes place between Europe and the USA. By creating a single market, we must at least ensure that it is sustainable, and build on it further if possible. Moreover, the TTIP offers us the historic opportunity to dovetail two economic areas with common democratic roots and standards even more closely, thereby shaping the future rules governing international trade. We should not lose sight of this objective during all of the formal discussions on consumer protection and arbitration courts.

Indeed, if Europe rejects the USA, the latter will form an alliance with the major Asian powers and our standards will surely fall by the wayside.



"Wir zusammen" ("We together") is supported by reputable German companies and their employees whose commitment actively supports and promotes the integration process.

www.wir-zusammen.de



Integrations-Initiativen
der Deutschen Wirtschaft



View immigration and refugees as an opportunity— unite Europe further

Europe is still in turmoil. The sovereign debt crisis in Greece is still unresolved. And, at the time of writing, nobody can foresee whether or not the people of the United Kingdom will vote to leave the European Union. We are also still far from reaching a sustainable agreement on how we should receive those people who are fleeing to Europe from war zones. The number of refugees from Syria, in particular, has declined in recent months. It will only be possible to see if the serious shortcomings of the EU system regarding the registration, admission, and fair distribution of asylum seekers have really been resolved when the number of people fleeing to Europe increases once more. Since more than 60 million people worldwide have been displaced as a result of numerous conflicts, the need to find a sustainable solution has currently only been postponed, not satisfied. Despite all the issues, however, we should view the influx of people as an opportunity for our society rather than a threat; an opportunity for our steadily ageing society in which labour is becoming scarce and economic momentum is threatening to ease off. Without immigration, economic growth would fall to one third of today's level in the next ten years. The stability of our social security systems, especially pay-as-you-go pension

schemes, would be uncertain. Therefore, the integration of refugees must be viewed as an investment for the future of our country.

As one of the first companies in the region, we have set up extensive traineeships to support the qualification of asylum seekers. Large numbers of employees in our operations have registered their interest in becoming mentors to support their successful start to working life. The first vacancies have already been filled.

We should stop complaining about issues of unclear disputes. The challenges are considerable: let's take them on.

Wishing you a wonderful summer and the best of luck.

Yours,

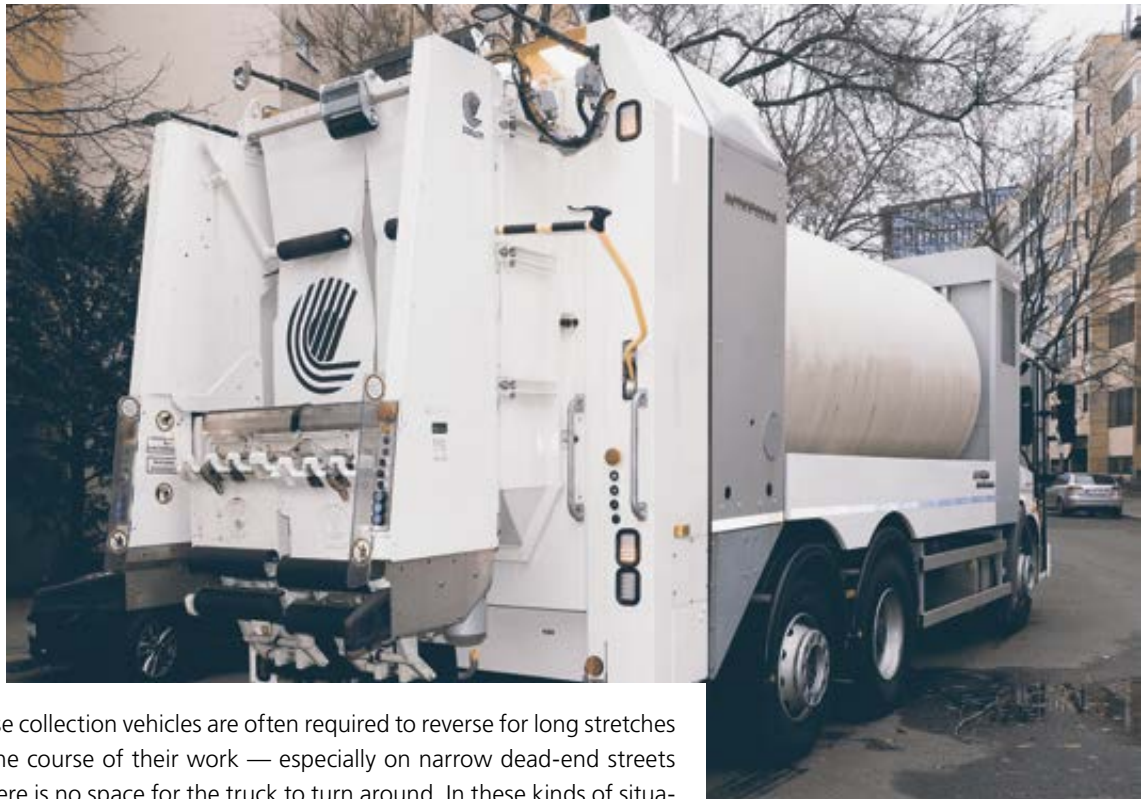
Dr Johannes F. Kirchhoff

The world's one and only Reversing Safety System for municipal vehicles



Georg Sandkühler (R&D Manager FAUN Group) shows how secure operators stand on the footboard using RSS whilst reverse traveling. Burkard Oppmann, Sales Manager Germany, is confident that the branche is interested in this new safety product.

— Danger spotted — danger averted. The Reversing Safety System (RSS) is the world's first solution designed to protect operating staff travelling on the footboard of a refuse collection vehicle.



Refuse collection vehicles are often required to reverse for long stretches in the course of their work — especially on narrow dead-end streets where there is no space for the truck to turn around. In these kinds of situations, serious or even fatal accidents become all the more likely. FAUN developed the RSS to improve safety during these hazardous manoeuvres, and the system was unveiled for the first time at the IFAT trade fair in Munich.

During IFAT exhibition we have been honored with the VAK innovation award for the RSS.

The system represents a complete reversal of the current vehicle operating principles applied during refuse collection. The DIN EN 1501 standard states that technical measures must be in place to prevent reverse travel of a refuse collection vehicle when an operator is standing on any of the footboards. The FAUN RSS works in precisely the opposite way. The system is designed so that refuse workers have to be standing on the footboards for the vehicle to travel in reverse — because from this position, they can monitor the area behind the vehicle.

The core components of the RSS are a pivoting safety bar that the operator must pull down from its idle position above their head to the operating position, resting in front of the chest. When pulled down, the operator grips the integrated hand zones, which are monitored by sensors. The bar is also equipped with a handbrake lever, which enables the operator to stop the reverse travel of the vehicle. The layout of the bar and the sensors forces the operator to look in the direction of travel while the vehicle is reversing, enabling him to identify any hazards at an early stage. The operator himself is not exposed to any danger, as he is standing safely on the footboard. The professional association for the industry has already obtained permission to carry out long-term tests of the new system on multiple vehicles. Upon successful completion of the tests, the system will be available not only on new vehicles, but also as a retrofit option, making a significant contribution to improved safety for refuse collection workers.

Author: Georg Sandkühler

Our values connect people—worldwide



The Managing Partners of the KIRCHHOFF Group f.l.t.r.: J. Wolfgang Kirchhoff, Arndt G. Kirchhoff, Dr-Ing. Jochen F. Kirchhoff and Dr Johannes F. Kirchhoff.

In the following interview, the family shareholders highlight the importance of vision and values to our Company.

Can companies be successful without having a vision?

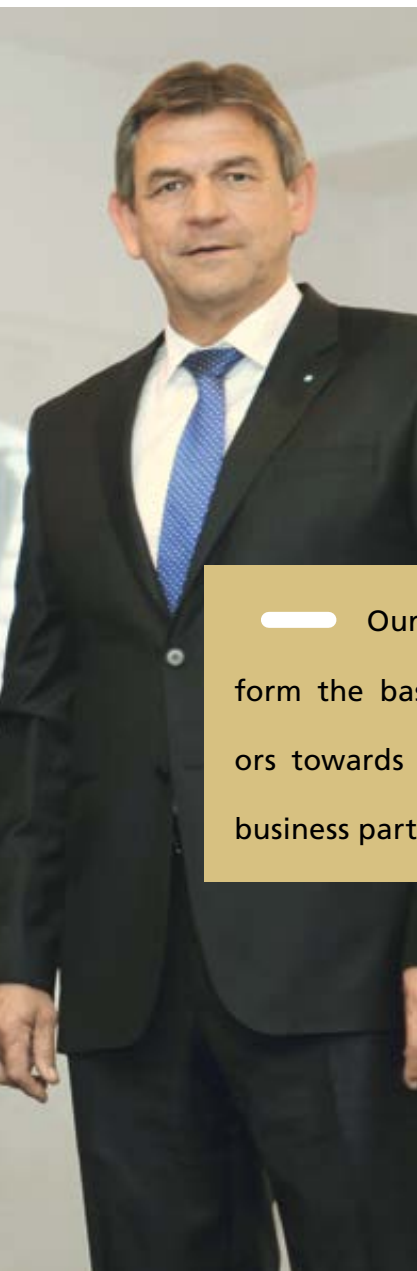
Dr Johannes F. Kirchhoff: Perhaps, but certainly not as successful as they could be and, above all, they would risk losing harmony within the team. One of the inspirations behind this idea is the Antoine de Saint-Exupéry quote: "If you want to build a ship, don't drum up the men to gather wood, divide the work, and give orders. Instead, teach them to yearn for the vast and endless sea." A vision can originate in a small group, or it can be devised by individuals. However, the wider management team must jointly develop and agree on a strategy to realize the vision. Thus, with every activity and every decision, all of the company's employees can follow this strategy on a daily basis. With this combination of vision and strategy, a company's workforce has a purpose and works to a plan.

Why is it so important to make such an effort to communicate the vision around the world?

J. Wolfgang Kirchhoff: With our vision we want to let all of our employees know where we want to go in the years ahead. We cannot get bogged down in details, rather we must make clear what the key points for us are:

Our Values provide orientation and security. They form the basis of our interactions as we apply our behaviors towards our colleagues, employees, supervisors and our business partners.

- being the best in the world in our product range
- being a sustainable, successful, family-owned company
- we stand by the merit principle, providing our customers with the best level of performance
- we take care of our employees, they are the heart of our Company! »



”

» Values hold our society together;
they form the basis on which we interact
with each other. «



Dr.-Ing. Jochen F. Kirchhoff

The KIRCHHOFF Group looks back on 230 years of company history. Shared values, and commitment to society are nothing new, are they?

Dr Jochen F. Kirchhoff: No, indeed as early as 1855, the Company started a health insurance fund for the employees and their family members, which predates the general social insurance introduced by the Prussian state under Bismarck. Furthermore, during the First World War, together with the city of Iserlohn, my grandfather set up a foundation “for the deserving poor and needy” and, in the Second World War, my father created a relief fund for “war widows and their dependants”. In addition, they voluntarily supported the management and foundation of a general cooperative society, a compensation board for injured workers, and societies promoting sport, education, and culture. These days, my sons and I continue this work through a newly established charitable foundation that is more financially secure and focuses on “training and education, culture, sport, and social issues”. Considering the growing need for financing in modern sport, we also think that additional sponsorship of local sports clubs is particularly important.

How important do you think values are for family-owned companies in particular?

Dr Jochen F. Kirchhoff: Values hold our society together; they form the basis on which we interact with each other. Our wish to encourage and support our employees in every way is also founded on these values, and not just at the workplace. We want to encourage a healthy work-life balance so that our employees can enjoy their free time and, more importantly, enjoy it with their families.

How do you ensure that the next generation attaches the same importance to these values, and maintains them?

Dr Johannes F. Kirchhoff: First of all, by living these values, by acting as role models, through in-depth dialogue and discussions, and by providing inspirational examples. But certainly also through working closely with our children. For this purpose, and for a number of years, we have been holding joint

events with the next generation in which we tell them about our markets, customers, and our Company. We also give our children some tasks to work on, centred around leadership issues; for example, what abilities a leader, a businessman, should have. Through these activities, we find that the next generation is already largely supportive of our values. Our overall guiding principle in working closely with our children is: “Passing the torch, not bemoaning the burden”.

Are our values appreciated in the same way around the world, across cultural divides?

Arndt G. Kirchhoff: Our values are based on honesty and reliability, since they are the intrinsic prerequisites of a functioning society. Cultures do vary greatly in different countries and on different continents; and we not only recognize this, but we value it. Honesty and reliability are, however, global values that are independent of culture. We ask for these qualities in all our employees so that we can express our various cultures on common ground. Culture is part of our identity and it presents itself in a wide variety of ways; honesty and reliability are the elements that unite us.

Vision and values lead to a code of conduct. Is it possible to apply the same code of conduct to all of our plants around the world, irrespective of the country or culture?

J. Wolfgang Kirchhoff: Definitely. We want our code of conduct to apply worldwide. How we interact with each other, what rules we follow, and how we want to develop further. We formulated these ideas as a team, they are not stipulations handed down by the owners. These principles are intended to be valid independent of country or culture, position or status. »

From your experience, do managers need to add to their knowledge sometimes, too?

Dr Jochen F. Kirchhoff: We don't want to be "schoolmasters", instead we want to show together that our values include "trusting others" and "delegating responsibility", and that this is the route to working happily and successfully as a team. To be continuously reminded of this is useful to all of us, regardless of the position we hold.

Social responsibility is one of our values. This includes helping people in emergency situations, such as in the catastrophic floods in eastern Germany a few years ago, or now in the refugee crisis. How can we help those people who are seeking refuge in our country?



J. Wolfgang Kirchhoff: We can help them to gain qualifications by providing internships with the Company and set them on the road to employment, that is the best way to integrate. And we have already started to do so. Furthermore, we are supporting projects run by aid agencies and charitable institutions, both in terms of material support and in the context of "hands-on" projects.



Dr Johannes F. Kirchhoff

Dr Johannes F. Kirchhoff: We're also voluntarily helping with mentoring and integration, and by communicating our values and our culture; as well as motivating the employees to do the same.

Many people are afraid that having too many refugees will change our society. They worry that the changes could have a negative impact on their lives?

Arndt G. Kirchhoff: It is a fact that, by 2030, there will be six million fewer people of working age in Germany than there are today. The reason for this is that as a society, we have not ensured that there is enough new blood coming through, and the children who are born today will only be 15 years old in 2030; consequently, there will be a huge gap to fill in our workforce. This challenge can be solved in two ways. Either, as we have already seen in recent years, there is the controlled immigration of people from other European countries where there is a high level of youth unemployment, such as Spain, Portugal, Italy, and Greece. Or the refugees are welcome, although admittedly we will still need to train them so that they acquire the skills we need. However, I think

this can be achieved if we remember that, as ethnic Germans from Russia, we too were once migrants. And in the 1960s, we invited many so-called foreign “guest workers” to our country who also all received training and made a major contribution to the competitiveness of the German industry. Since then, many people have returned to their home countries, back to Turkey, for example, and now they work for our Company there. They are excellent, skilled workers who also speak fluent German.

However, some countries in Europe would prefer to revoke the Schengen Agreement and even close the borders?

Arndt G. Kirchhoff: I believe that is wrong, not only from a humanitarian perspective, thinking of the refugees, but I also fear that the lack of solidarity between EU member states will lead to restrictions in the free movement of people, which has been of great benefit. If the borders are closed again, there will not only be visible congestion at the borders in terms of



Arndt G. Kirchhoff

goods traffic, but supply chains will also be extended. This will result in an accumulation of stock and will tie up capital, which will have a negative impact on Europe's economy. Moreover, it will be even worse for those people who travel across borders to work. It will no longer be easy for them to get to work due to long queues at the borders—and, of course, we will also no longer have access to valuable employees. This exchange of labour occurs at all of Europe's internal borders—between Poland, the Czech Republic, Austria, and Germany, between France and Germany, as well as Holland and Germany. It would be a tragedy for people and companies if we were to be separated from each other again as a result of such lack of solidarity.

» Our values are based
on honesty and reliability, since they
are the intrinsic prerequisites of a
functioning society. «

The interview was led by Andreas Heine, Director Corporate Communication & Marketing KIRCHHOFF Automotive.

A heart for

Author: Andreas Heine

— Sports sponsorship highlights from KIRCHHOFF Group



sports





The car collection team f.l.t.r.: Elmar Grimm, Max Edelhoff, Ingo Vogler, Dr Johannes F. Kirchhoff and Gustav Edelhoff

For quite sometime already, the KIRCHHOFF Group has supported the social lives of their plant employees through donations and sponsorships, whether in the areas of development, education, arts, culture or sports. The Kirchhoff family wants to contribute not only to the citizens but also to the communities in which they live in themselves. Sponsorships help to positively promote the locations benefitted, as well as the employees that are part of the Group of Companies. For this reason, the blue and white KIRCHHOFF logo has made its mark on the jerseys of the biggest sports clubs surrounding the Company's headquarters in Iserlohn.

The Audi R8 LMS displays the logo of the KIRCHHOFF Group globally. This racing car is used by the Car Collection Team, Walluf for long-distance races. Team leader Dr Johannes F. Kirchhoff, Managing Partner of the KIRCHHOFF Group and responsible for the environmental division of the Company, also belongs to the five-person driving team. He has been active in motor sports for more than 30 years. Out of the three Kirchhoff brothers he is for sure the one with the most gas in his blood. In 1985 he participated successfully with his brother Wolfgang in the rally and circuit races of the German and European championships. Beginning in 2008 he gained experience with long distances in the VLN, which he could now use during the 24h International Endurance Series this year. Already at the first race with the Audi R8 in Dubai the team achieved the seventh overall position among the 98 starters and third place in its class. »

A heart for sports



Since this past season, KIRCHHOFF Automotive is also active as a main sponsor 'under the basket'. The Iserlohn Kangaroos play basketball in the Second National League Pro B North and are very successful there... Along with the Roosters, they are another top team and flagship of the region aside from ice hockey. The support of domestic basketball is also close to the heart of Dr Jochen F. Kirchhoff, Chairman of the Advisory Board and of the Group of Shareholders of the KIRCHHOFF Group: "Since my youth I have been impressed by the fast game of basketball, so much so that I have learned and played together with my brother Arndt at the then TUS Iserlohn. I am happy that the dedicated team from Iserlohn has become a major attraction in the region and has attracted up to 1300 excited viewers during the last Playoffs for the Second National League Pro A". Despite the elimination in the quarter finals during the exciting Playoffs the team stole the viewers' hearts.



From the very beginning, KIRCHHOFF Automotive has been the main sponsor of the Ice Hockey Team, Iserlohn Roosters. Today the Roosters belong with the top teams of the DEL, the highest ice hockey league in Germany. The past season they have finished the preliminary round achieving third place. Unfortunately they were defeated during the Playoffs by the Nuremberg Ice Tigers. Ice hockey in Iserlohn, is the type of sport with the most viewers, certainly because of its long tradition. It dates back to the year 1954 when Canadian NATO soldiers in Deilinghofen built an ice rink, so they could practice their national sport during their stay abroad. In the following years this sport, which has been unknown until then to the locals, impresses both, viewers and amateur athletes, so that the Deilinghofen Ice Hockey Club was founded five years later. Today the ice rink, which seats 5000 viewers, is sold out long in advance for the top games.

Among all the already mentioned activities of course the most beloved German sport could not be left out. That is why the KIRCHHOFF Group significantly supports the Iserlohn Soccer Club, which arose years ago from the fusion of the club friends Oestrich-Iserlohn and TuS Iserlohn. Consisting of 30 teams, 28 of them being youth teams, the club is the biggest soccer club in Southern Westphalia playing at the highest categories; the senior and the youth teams in the league of Westphalia (Westfalenliga) and the female juniors in the National League. To J. Wolfgang Kirchhoff team sports are especially dear: "Team sports convey a sense of unity which is important in business and private life. To win together but also cope through a defeat – that helps everyone's personal development."

But the KIRCHHOFF Group also supports the social commitment of their employees. That is why the Letmather Gymnastics Club has been sponsored for some time. There, Artur Rath, Plant Manager in Attendorn, is committed to being a volunteer handball

coach since his 18th birthday. Currently he coaches the C- and F-handball youth teams of the Letmather Gymnastics Club. It turned out that this is a real talent factory; after the European Handball Championship in Poland everyone in Letmathe is proud of Niclas



Pieczkowski who started playing handball at the age of four at the Letmathe TV and now is a European champion.



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 **KIRCHHOFF**
AUTOMOTIVE

WE.MOVE.FUTURE.

New products on the road

- KIRCHHOFF Automotive strengthens partnerships to OEM's through experience and development support.

Aluminum Cross Car Beam



Chevrolet Camaro aluminum Cross Car Beam and more than 80 further components

Technologies:

Stamping, aluminum welding, MIG & resistance welding, clinch, clip and torqued fasteners, CNC cutting, CNC bending, aluminum extrusion, pumped & tape sealer, E-coating

Production Plants:

Lansing and Tecumseh (Michigan)/USA, Aurora, North York and Richmond Hill (Ontario)/Canada

Capacity/Year:

100,000

Customer/Model:

Chevrolet Camaro Coupé and Convertible



Chevrolet Camaro: One of GM's best cross car beams

Due to the experience in the production of Cross Car Beams for the Cadillac ATS and CTS, GM also chose KIRCHHOFF Van-Rob to supply the all-new 2016 Camaro Aluminum Cross Car Beam.

Compared to the previous model, the Alpha Camaro, this cross car beam uses significantly more stamped parts and less machining-intensive extruded parts. The result is one of GM's best performing Cross Car Beams ever, weighing around 7 KG (15 LBS) only.

In total, the order volume comprises 37 and 53 components for the Coupé and the Convertible respectively. Together with the aluminum cross car beam this is the largest program ever awarded to KIRCHHOFF Van-Rob in North America.



Dash Assembly



Wheelhouse support



Audi A4/A5 wheelhouse support

Technologies:

Stamping, spot welding

Production plant:

Attendorn/Germany

Capacity/Year:

472,000 sets

Customer/Model:

Audi A4, A5



Wheelhouse support



Welding with high speed – wheelhouse support for Audi

For the current Audi models A4 and A5 KIRCHHOFF Automotive produces the wheelhouse support. For this the individual parts were stamped in Attendorn, Germany, on the 500 to press and subsequently welded together on a new high speed cell.



BMW X1 inner and outer support spring bracket, rear tunnel strike and further parts

Technologies:

External spring bracket: Deep-drawing
Front interior spring bracket: Deep-drawing, joining of one nut and one stud respectively with standard KVA medium frequency welding machine

Rear tunnel strike:

Forming on 1,250 to press incl. six stamping studs Mielec/Poland

Production Plants:

External spring bracket: Attendorn/Germany
Front interior spring bracket: Esztergom/Hungary

Capacity/Year:

External spring bracket: 500,000
Front interior spring bracket: 300,000 sets

Rear tunnel strike:

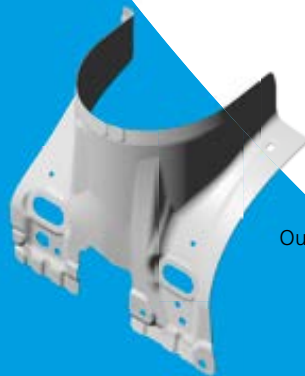
730,000

Customer/Model:

BMW X1

Eight products from four plants for BMW X1

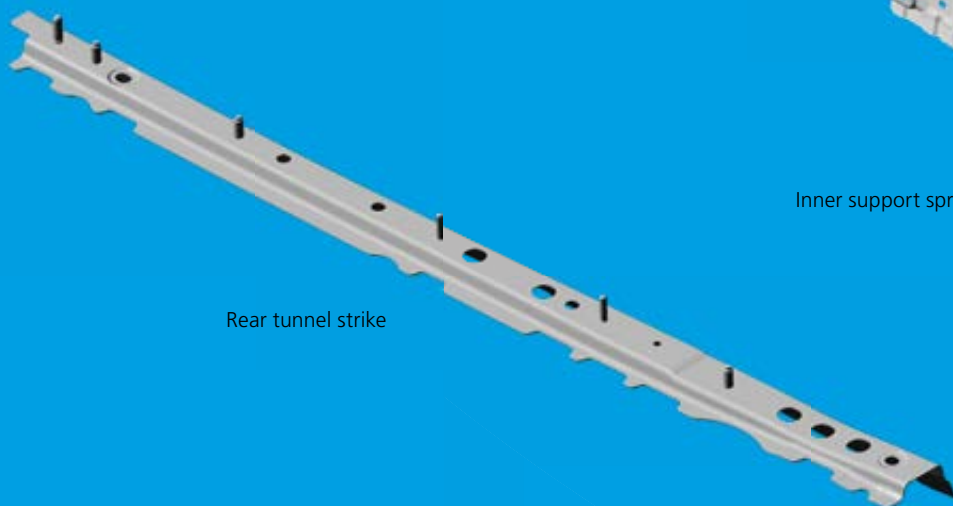
Eight products we manufacture at different locations are assembled in the new BMW X1. In Attendorn, Germany, for example, we produce the bulkhead plate for the transmission center on the automatic projection welding system. Also at that location, on a transfer molding press, the highly-complex left and right external spring brackets are also produced.



Outer support spring suspension



Inner support spring suspension



Rear tunnel strike



Our parts for the 10th generation of the E-Class of Mercedes-Benz

At the Detroit Motor Show in January Mercedes has introduced the 10th generation of the E-Class. On board are besides the numerous technical innovations and a lot of multimedia also some chassis parts from KIRCHHOFF Automotive. In Iserlohn, Germany we manufacture the hot formed parts strut stiffening stem, support front wall, pan pedal system and the cross member under the wind shield. At the Attendorn plant in Germany the side impact bars of the front and rear doors which are made of high strength steel are produced.

The E-Class is the brand's core at Mercedes'. For the vehicle manufacturer this car model is supposed to be "the best and most intelligent business sedan in the world", says the Development Manager of the E-Class, Michael Kelz.



Mercedes-Benz E-Class strut stiffening stem, support front wall, pan pedal system, cross member windshield and side impact bars of the front and rear doors

Technologies:

Hot forming, cold forming and high strength steel

Production Plants:

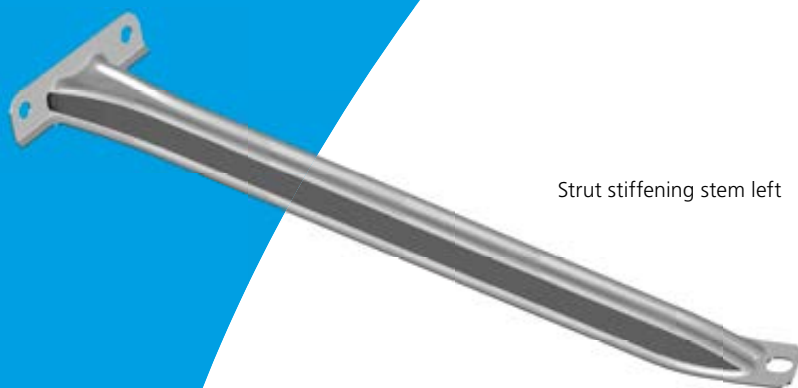
Attendorn, Iserlohn/Germany

Capacity/Year:

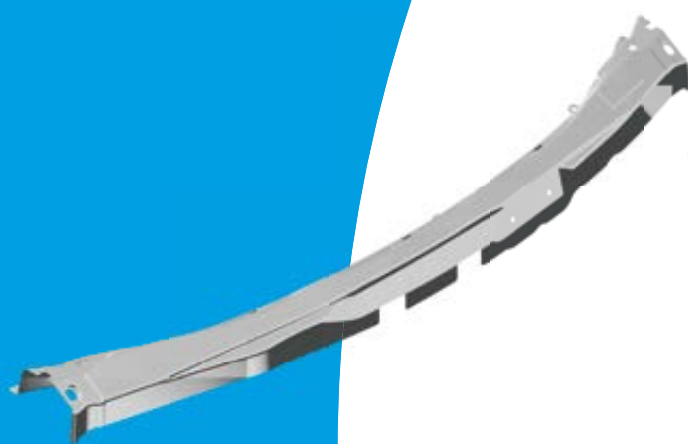
up to 330,000 vehicles

Customer/Model:

Mercedes-Benz E-Class



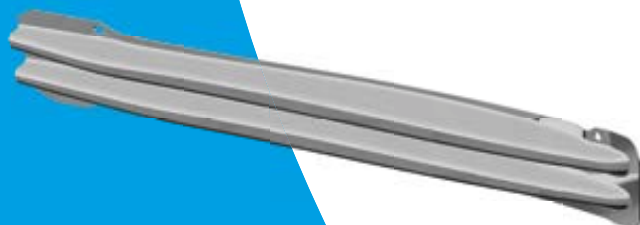
Strut stiffening stem left



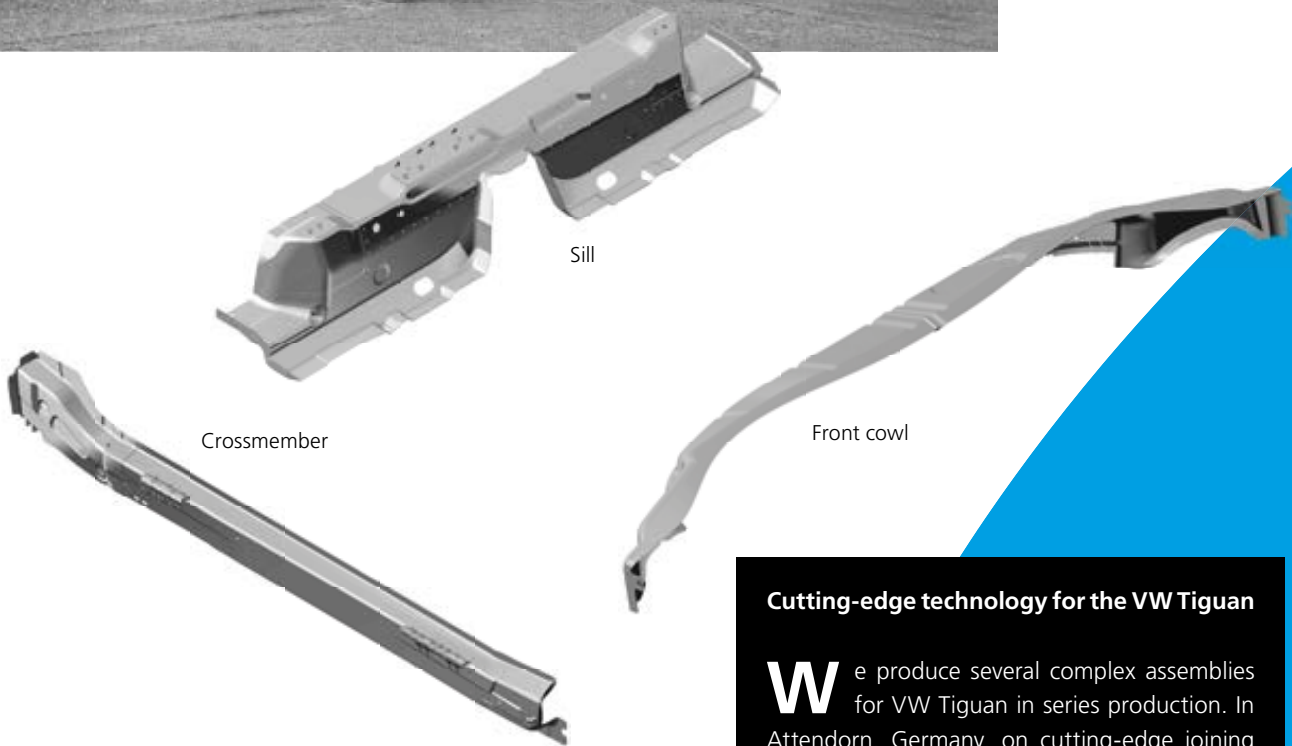
Cross member windshield



Pan pedal system



Side impact bar left front door



VW Tiguan sill, crossmember and front cowl

Technologies:

Sill and Crossmember support for rear seat:
Hot forming of highest-strength steels and
tailor-rolled heel part, spot and projection
welding, gluing
Front cowl: Deep-drawing,
welding of bolts, foam bead

Production Plants:

Sill and crossmember support for rear seat:
Attendorf/Germany
Front cowl: Gliwice/Poland

Capacity/Year:

215,000 vehicles

Vehicle/Model:

VW Tiguan

Cutting-edge technology for the VW Tiguan

We produce several complex assemblies for VW Tiguan in series production. In Attendorf, Germany, on cutting-edge joining machines the weld assembly sill and develop crossmember supports for rear seats. Therefore, we use the highest-strength steels from the hot forming department in Iserlohn. In modular system concepts we combine most diverse joining technologies like spot and projection welding and gluing.

For the two-part front cowl we first produce the deep-drawn basic parts, in Mielec, Poland, from 0.6 mm thick sheets. In Gliwice, Poland, the setting of six bolts by a robot-controlled foam bead takes place, it takes over the sealing function between engine compartment and interior.



Aluminum Cross Car Beam



Chevrolet Volt Cross Car Beam and Battery Tray

Technologies:

Cross Bar Beam: Stamping, welding, clinch, clip and projection/drawn-arc fasteners

Battery Tray: Stamping, welding, drawn-arc fasteners, flexible reinforcement polymer patch

Production Plants:

Aurora, Ontario/Canada and Waverly, Ohio/USA

Capacity/Year:

80,000

Customer/Model:

Chevrolet Volt

Chevrolet Volt: Safety with our parts

Chevrolet Volt is based on GM's D2 platform which our customer GM manufactures and sells globally. Models of this platform can be equipped with a large variety of engines, but it's Volt's unique Electric / Gasoline hybrid system that sets it apart.

For the D2 platform our Aurora plant, Canada, manufactures the tub for the battery. The tub is meant to contain any battery residue that may be exposed in a catastrophic accident and in the very unlikely event of a fire. A similar, but more complex corrective action, was recently put in place on the new Boeing 787 airliner.

In Waverly, Ohio/USA we manufacture the cross car beam for Chevrolet Volt. Weighing only 17.4 lbs (7.9 kg) the part is very light, but also very efficient. The use of a one-piece tube design made of high strength steel, achieves superior crash protection at a competitive price.




Battery Tray



Partners in Excitement



The supercar from Honda: the Acura NSX.

 In the spring of 2016, KIRCHHOFF Van-Rob went into mass production for the engineered components of the next Supercar—the Acura NSX. The NSX is a 2-door coupe with mid-engine layout and all-wheel drive. The vehicle is a high-tech platform made from lightweight materials and high aluminum content.

With an extensive level of aluminum processing experience, KIRCHHOFF Van-Rob is a perfect partner who is able to meet the criteria and high expectations of the NSX. Honda had set out to build their new level Acura NSX with the theme, "Precision Crafted Performance". The NSX is intended to represent the perfect balance between power and handling, form and function, sport and luxury.

The partnership

In 2013, KIRCHHOFF Van-Rob was awarded the LHD Steering Hanger Beam. By working closely with our customer, the sales team was able to secure a total of eleven assemblies for the NSX program. This consisted of two steering hanger beams and nine chassis assemblies for the vehicle. Our experience with Honda's ZDX aluminum Steering Hanger Beam, helped us with winning the business.

For all new product programs, Honda comes in and performs several reviews during the development stages of the program. In the beginning of this year KIRCHHOFF Van-Rob passed the so called New Model Review (NMR) Level 5 audit. By approving NMR 5, Honda has confirmed that we are production ready in all areas including; tooling, equipment, quality, process documentation and even sub supplier activities.

The vehicle build

The NSX will be manufactured exclusively at the Performance Manufacturing Center (PMC) in Marysville, Ohio/USA. The plant and its processes have been developed to perfectly blend craftsmanship and technology in a new approach to manufacturing. The factory is cutting edge and purpose built, there are no walls and every single build stage is open to view.

The orchestrated equipment

With the NSX launch, we were no longer working on a high volume new model year vehicle; we were selected to work on a supercar that is produced in small numbers and is to have global recognition.

The processes and production systems therefore, had to be orchestrated perfectly. All components come together in Aurora's dual robotic MIG welding cell. The cell has been engineered through our corporate team to optimize the welding process. This includes, speed, length, access to welds using 3D simulations and taking advantage of a virtual process review.

The tooling was designed and built to suit multiple setups with common tool beds. This allows the weld cell to be changed over efficiently while meeting the build schedules. The tooling base is built to hold several fixtures for welding multiple parts.

The equipment is all orchestrated to work together with one purpose. The amount of integration is quite complex when you consider trying to weld aluminum on a rotating bed with simultaneous robotic welding. »

Innovative solutions

There were areas of opportunity during development to improve not only the process but the product itself as well. Multiple collaborative online conferences and design reviews were conducted for machining feasibilities on the aluminum extrusions as well as tooling feasibility and robotic torch reach angles. The team was able to successfully integrate the improvements and repeat all the quality checks for customer approval.

The KIRCHHOFF Van-Rob team wanted to improve the repeatability of the welds by means of 'better fitting' the parts prior to welding. By having the Honda team available for functional review at the weld cell, the proposals for eliminating twist, better weld penetration, and assembly clearance location reviews were acceptable to both parties will keep the high standard of quality.

The quality inspection involves complex fixtures that support part as if it was being installed in the vehicle. The datums allow the parts to be held by common reference features, so that each stage is repeatable throughout the process. Data collection is a large part of the quality process, allowing a greater understanding of capabilities. This is a measure of our expertise and will be continued moving forward as we seek to obtain future business.



Steering Hanger Beam Acura NSX

Technologies: Stamping, dual robotic MIG welding, riveting nut installation, aluminum extrusion, CNC machining

Production Plant: Aurora, Ontario/Canada

Capacity/Year: up to 2,000

Customer/Model: Honda Acura NSX



The NSX weld cell and process have been exciting to the KIRCHHOFF Van-Rob team and their employees. As an open employee forum is held monthly, details of the launch and the customer's visits are shared to the divisions.

The senior management team is visiting the cell, f.l.t.r.: Tony Parente, President and COO of KIRCHHOFF Van-Rob, Chris Green, Aurora Plant Manager, Peter van Schaik, Chairman of the Board and Gord Rowe, Engineering Manager.



Barret Jackson, the world's largest auctioneer for vehicle collectors, auctioned the first Acura NSX supercar produced in the beginning of 2016. The collector's piece with the VIN #001 was auctioned with a bid of \$1.2 million. The proud owner is now Rick Hendrick, Nascar (National Association for Stock Car Auto Racing) team owner. The entire bid proceeds were donated to the charities Pediatric Brain Tumor Foundation, a foundation that supports children with brain tumors, and to Camp Southern Ground, a camp that especially cares for children with social, psychological problems or problems at school.

Tony Parente, Managing Director and COO KIRCHHOFF Van-Rob is happy about the successful project: "The partnership with Honda was a great benefit for both sides. We are extremely proud to know that we in part, have helped support this build as we continue striving to be an innovative partner to the automotive industry."

The supercar has been a hit at all Auto Shows this year.

Author: Gord Rowe



— In the beginning of May Joshua Forquer has been hired as the Vice President Sales of KIRCHHOFF Van-Rob and is therefore, responsible for the whole sales area of North America.

Joshua Forquer is new Vice President Sales for the North American market

After graduating and holding his Bachelor of Science degree in Management he began 1998 with his professional career at Valea Wiper Systems, at first employed as Project Purchaser. In order to intensify the contact to the suppliers on-site, he moved to France after a while.

In 2000 he joined the Bing Group in Detroit as Advanced Sales Manager where his area of responsibility expanded from year to year and he finally represented the company as Vice President Sales.

Before he entered KIRCHHOFF Van-Rob, he was employed at various subsidiaries of L&W Engineering in leading positions and hold the position of Vice President Sales at last. Part-time he successfully completed his "Master of Business Administration through the EMBA School at Michigan State University."

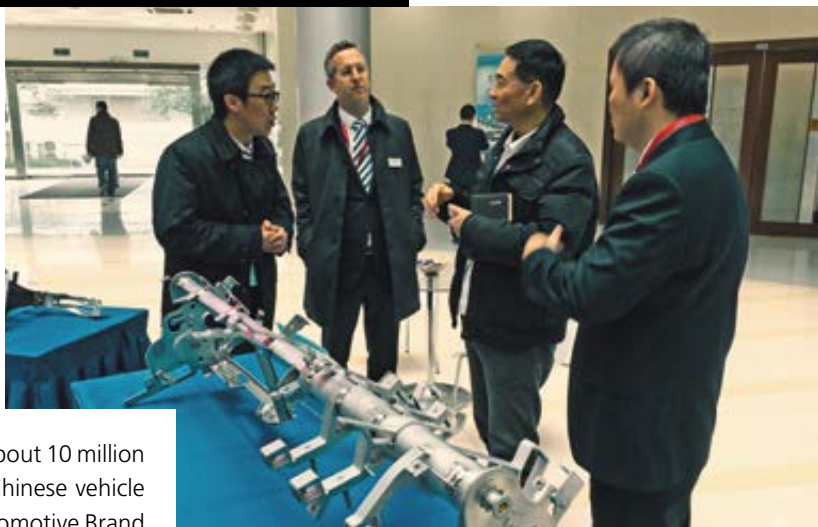
Joshua Forquer is excited for his new remit: "It has been my wish for a long time to work in a worldwide operating family-owned company." With his extensive experience in sales and project management Joshua Forquer is going to actively support and guide our employees in North America.

We sincerely welcome Joshua Forquer and wish him all the best for his new tasks at KIRCHHOFF Van-Rob.

Author: Kristin Menzel

Our products for China's biggest vehicle manufacturer

— The Chongqing Changan Automobile Company is one of the biggest vehicle manufacturers in China. KIRCHHOFF Automotive was able to present to them its highlight products and core competencies during a special suppliers day.



With an accumulated sales volume in China of about 10 million vehicles Changan leads the ranking of the Chinese vehicle manufacturers and has been awarded as "China's Automotive Brand of the Year" in 2015.

For one day KIRCHHOFF Automotive in China was given the unique chance to convince purchasers, technicians and developers from Changan of their performance in metal processing onsite. A detailed presentation of our competencies especially focused on the light weight technology impressed the visitors. In addition to that the KIRCHHOFF Automotive team highlighted respective developing possibilities like the application of aluminum products.

The whole presentation was greatly appreciated and paved the way for the future cooperation with Changan.

Simon Stephan (2nd f.l.), Managing Director KIRCHHOFF Automotive in China, talking to interested purchasers and technicians from Changan.

Author: Veronica Gao

The fifth plant in Poland is opened

On September 1st 2015, construction of the new KIRCHHOFF Automotive plant in Gniezno began with the official ground-breaking ceremony. In January 2016, the production hall was completed, and shortly thereafter the administrative section. Around 5,000 sqm of new production and storage space was built in a very short time.



01

02 After signing the declaration of intent between KIRCHHOFF Automotive in Poland and Gniezno city officials

04 The first part is produced. In the picture (f.l.t.r.): Wojciech Jurasz, Plant Designer | Piotr Pociask, Launch Manager | Rafał Lechowski, Managing Director Operations Gliwice | Maciej Brevka, Plant Manager Gniezno | Dieter Wlochowicz, Engineering Project Manager | Ryszard Muzyczka, Managing Director Operations Mielec | Lutz Leibe, CME Senior Manager Plant Planning | Andrzej Padykuła, Arkada Group | Jaromir Kośła, Construction Supervisor.



02



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04



05



01 The new plant in Gniezno.

03 Machinery is already being installed at the Gniezno plant. Plant Manager Maciej Brewka (centre) explains the next steps in conversation with Eva Kirchhoff, architect, and Ryszard Muzyczka, Managing Director Mielec.

05 End of May the plant manager Maciej Brewka (3. f. l.) welcomed a delegation from Volkswagen Heavy Vehicles headed by Jörn Hasenfuß (4. f. l.), Board Member Procurement of the Volkswagen Heavy Vehicles brand, in the new KIRCHHOFF Automotive plant in Gniezno.

The reason for building the facility was Volkswagen's nomination of KIRCHHOFF Automotive for the production of around 70 assemblies for the new VW Crafter. This van is manufactured in Września near Poznań, not far from Gniezno.

The first welding robots were installed in mid-March, and a week later the first assemblies were produced in Gniezno as the construction work was being completed. By the end of March, the first parts were shipped to the VW plant in Września. Engineering Project Manager Dieter Wlochowicz led the hard-working Launch Team, consisting of specialists from the Polish plants in Gliwice and Mielec, which supported the employees in Gniezno with the commissioning of the new plant.

City officials in Gniezno had shown great interest in the implementation of this project right from the very beginning and supported the construction phase in all administrative aspects. Furthermore, solid contributions were also made by the Jurasz office, responsible for the design planning, and the building company Arkada.

The recruiting process for new employees is in full swing, with the aim to start series production in September.

Author: Ryszard Muzyczka

Five hot-forming lines for high-strength structural parts





— Six months ago, the symbolic opening of the third plant in Gliwice/Poland took place. The new production hall now houses a state-of-the-art hot-forming line, which entered the production phase just one month after its construction.

KIRCHHOFF Automotive now has five systems of this type and, by using hot-forming technology, it is consistently pursuing its strategy towards lightweight automotive construction. Demand for high-strength structural parts in lightweight construction has continued to increase in recent years. This is due to the requirements for improved safety, comfort, and driving characteristics, which contradict the demand for reduced fuel consumption. Hot-forming technology makes it possible to manufacture extremely strong structural and safety-consistent components that are also lightweight.

Until now, this technology has only been available in our plants in Germany and Hungary. In autumn 2015, the decision was made to introduce it at the Gliwice location in Poland. An adjacent piece of land with an existing production hall was acquired for the construction of the system in Gliwice. As a result, 15,000 square metres of production and warehouse space were added, in which specialists built a hot-forming line consisting of a 1,200-tonne hydraulic press, a continuous gas furnace, and a feeder system.



As part of KIRCHHOFF Automotive's 10-year anniversary celebration, which took place in the special economic zone in Gliwice in May, the system was officially inaugurated and presented to the public (read more on page 44-47).

While the system was being installed, select employees underwent training. These employees invested more than 10,000 hours in theoretical and practical exercises relating to forming technology, materials, and standards with special reference to specific customer requirements regarding heat treatment. They also made numerous visits to Iserlohn/Germany and Esztergom/Hungary, where production systems have been running successfully for a while. During these visits, the focus was on the hot-forming lines, toolmaking, and quality control. Rafał Lechowski, Managing Director in Gliwice, is particularly grateful to the employees in Germany and Hungary, as well as to his colleagues in Mielec/Poland: "Everyone was extremely helpful and willingly shared their knowledge and experience with us. Thanks to the commitment of our team and the huge support we received within the Group, we have now mastered this pioneering technology and are ready for the series production of hot-formed parts."

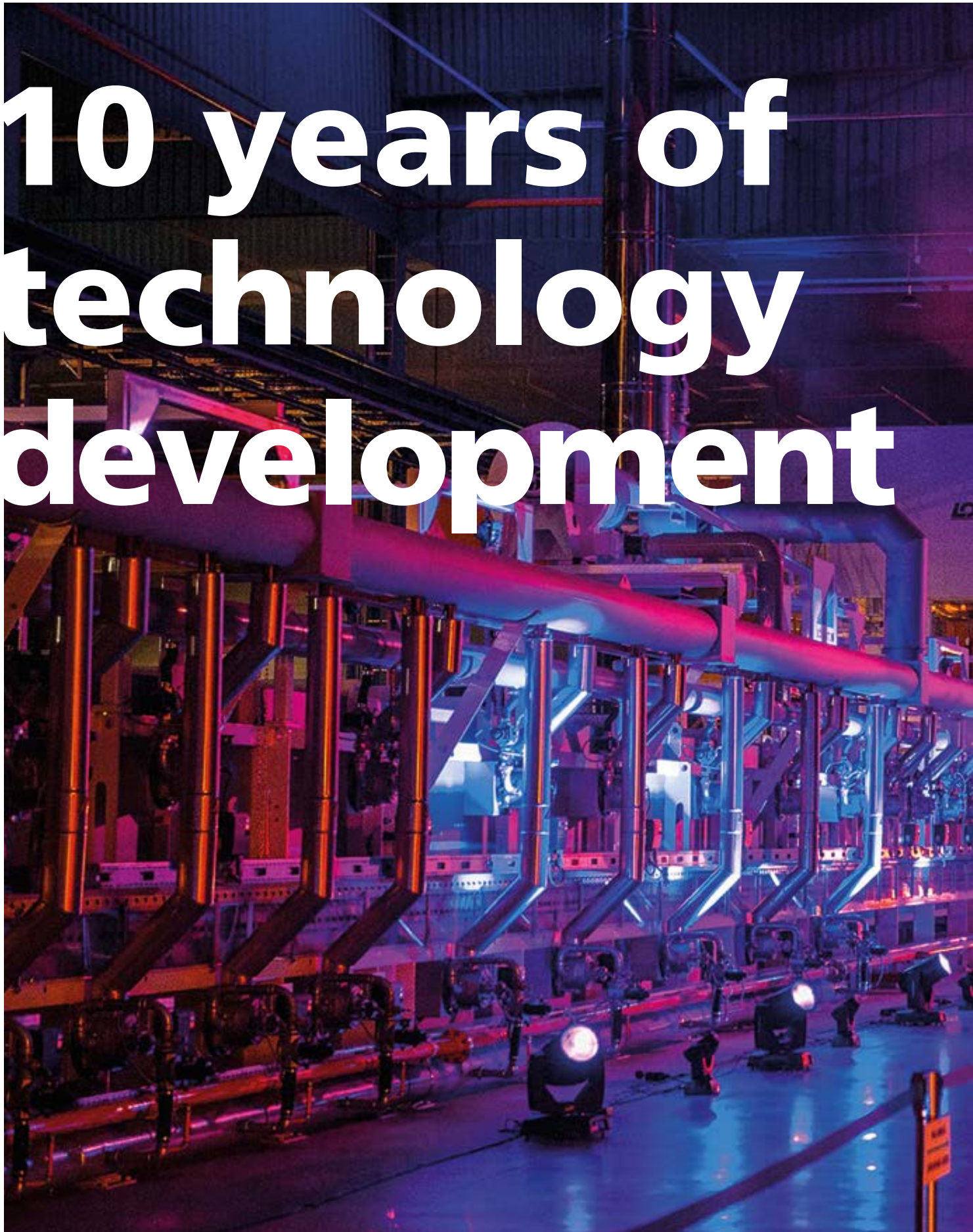
Author: Rafał Lechowski





The project team responsible for the construction and commissioning of the system did an excellent job.

10 years of technology development





at Gliwice

Investing in future technologies, celebrating the present and the past—these are the three main topics on which this year's celebrations of the 10-year anniversary presence of KIRCHHOFF Automotive in the Katowice Special Economic Zone, Poland are based on. Special highlight of the celebrations: the launch of modern hot forming technology.

"Today, it becomes increasingly difficult to find a car in which no part of KIRCHHOFF Automotive is installed"—with this sentence Managing Director Rafał Lechowski highlighted the wide product range at KIRCHHOFF Automotive at the gala for the 10th anniversary of our plant in Gliwice's economic zone. The ceremony took place on 23rd May in the new production hall.

Rafał Lechowski talked about the beginnings and the further developments of the plant in the last ten years: "It all began with one rented hall of the mechanics company Bumar Łabędy. Back then a team of 80 people welded simple elements for the Opel plant in Gliwice. We focused however, on educating our team, we have taught our employees new technologies resulting from investments in complex welding and e-coating processes. Today we are a team of 600 people who reached a turnover of 92 Mio. Euro in 2015."

The Gliwice plant meanwhile reached the size of 41,000 sqm. And with the new hot forming line the plant now possesses another technology—press hardening. The introduction of the line was the highlight of the event, without doubt. KIRCHHOFF Automotive shareholders and management members were accompanied on the stage by government representatives and special guests, to perform symbolic launch of the new investment. As they all pushed the buzzer, the side curtain illuminated by lights and special effects was raised. The entire audience held their breath at that point anxiously awaiting for what was yet to come. Suddenly, the countdown started - "5...4...3...2...1" and as the colorful lights emblazed the darkness and the fanfare filled the air, the press started its symbolic journey into serial production.

Further significant moment during the gala was the speech of Katherine Worthen, General Motors Vice President for Purchase and Chain Europe. She expressed her gratitude for stable and successful co-operation between KIRCHHOFF Automotive and General Motors in Gliwice. She also referred to the core competencies of the company, especially of the Gliwice branch and emphasized the future-oriented developments.

Our plant also contributed immensely to the dynamic development of the local economy in Gliwice. This was emphasized by many representatives of the local authorities, who were also invited to the anniversary celebrations.

In the name of the shareholders, Arndt G. Kirchhoff wished further years of stable productivity and success to all.

Author: Agnieszka Jadwiszczok



01 With the red buzzer the new hot forming line was unveiled, f.l.t.r.: J. Wolfgang Kirchhoff, Managing Director and COO KIRCHHOFF Holding, Arndt. G. Kirchhoff, Managing Director and CEO KIRCHHOFF Holding, Dr-Ing. Jochen F. Kirchhoff, Chairman of the Advisory Board and of the Group of Shareholders, Zygmunt Frankiewicz, Mayor of Gliwice, Piotr Wojaczek, President of Katowice Special Economic Zone, Stefan Leitzgen, Chief Operating Officer KIRCHHOFF Automotive, Rafał Lechowski, Managing Director Operations Gliwice and Janusz Soboń, Chief Strategy Officer KIRCHHOFF Automotive.

02 In his speech Rafał Lechowski, Managing Director Operations Gliwice, referred to the dynamic growth and future developments of the plant in Gliwice.

03 Katherine Worthen, General Motors Vice President for Purchase and Supply Chain Europe, emphasized the high quality of the long term partnership with the plant in Gliwice in her speech.

04 Janusz Soboń, Chief Strategy Officer KIRCHHOFF Automotive, answers the questions of the journalists concerning the newly installed hot forming line.



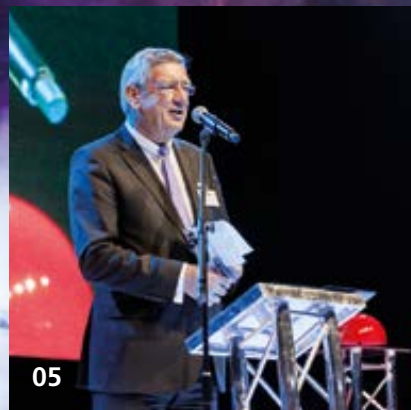
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05 In the name of the shareholders, Arndt G. Kirchhoff wished further years of stable productivity and success to all guests.

06 Representatives of all media came to the press conference.

07 J. Wolfgang Kirchhoff congratulates the staff of the plant in Gliwice for the previous successful development.



07



Football tournament and Family Day

On the day preceding the anniversary celebrations nearly 2000 employees from the Gliwice plant and their family members enjoyed various attractions during the Family Day in Rybnik-Kamien. Alongside the Family Day the KIRCHHOFF Automotive international football tournament in which participants from various worldwide plants took part, ensured high spirit and increased tension.



New sales organization

Traditionally and for many years the sales area of our company group was divided into the passenger car and commercial vehicle market.

In the past years however, a lot has changed, not only externally but also internally. This is why we had to check our previous division now.

So far several existing aspects made the separation between passenger cars and commercial vehicles reasonable: different contact people in sales and technology, core products with significantly higher material thicknesses for the commercial vehicle sector, our production locations, in general Iserlohn for commercial vehicles and processes, frequently large presses with high tonnage.

By now the borders between the passenger car and the commercial vehicle division blur more and more as the majority of our customers and several models from the original commercial vehicle division are now supported in the passenger car organization. On the

The Director of General Sales division will be Volker Tofall who has already been successful as Director of Sales for Commercial Vehicles at KIRCHHOFF Automotive in the past years. We want to wish Mr. Tofall in his new tasks all the best and a "lucky hand".

other hand also our passenger car teams partly take care of various commercial vehicles. Furthermore, we have adjusted our processes concerning the request handling and project management for all customer teams so that all teams work with the same standards and our employees can help flexibly in different teams.

With that, all foundations are laid to combine sales of both divisions and put the synergy between the teams to even better use.

Author: Dr Thorsten Gaitzsch



Connected over the centuries

— KIRCHHOFF Automotive celebrates its 10th anniversary in China.

Traditional Chinese performances such as painting the eyes of the lion, which is believed to bring good luck, made the celebration an unforgettable experience for every visitor.



It was a colorful show. Eight drummers in traditional costumes whirled across the stage, a face-changing act from the Chinese opera amazed the audience, and yellow and red lion figures, each supported by two artists, clearly identified the cultural region in which the 10th anniversary celebration took place. In mid-April, KIRCHHOFF Automotive celebrated its 10th anniversary at the Suzhou location in China. "As Consul General, I am often invited to corporate celebrations. This event has been the best that I have ever experienced", said Peter Rothen, German Consul General in Shanghai, praising the various performances at the anniversary celebration. In his speech, he stressed the importance of genuine local integration for a company to succeed in China and referred to KIRCHHOFF Automotive as an excellent example of a successful mid-sized German company in this respect: "Did you hear how Arndt Kirchhoff responded to the Chinese plans for economic development in the next few years? We can do it! Not China, but us, because the Company views itself as part of the Chinese development. This is the type of company that this country needs."

A centuries-old connection

It was with this attitude that the forefathers of KIRCHHOFF Automotive travelled to China at the start of the last century. Everything began with the sewing needle—not only the corporate history of KIRCHHOFF Automotive, but also more generally in terms of business relations with China. Around 1900, exports from the German needle industry were booming, particularly to East Asia, a key market of the Stephan Witte needle factory—Until the market collapsed after the First World War. »



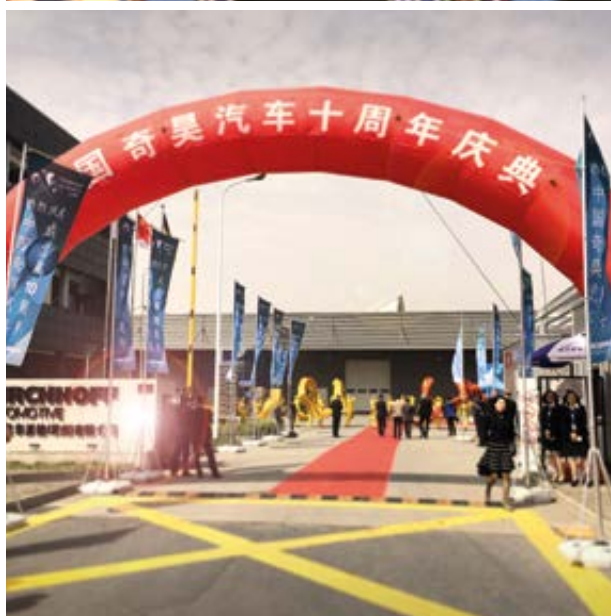
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01 The German Consul General in Shanghai, Peter Rothen (2nd f.l.), offered particular congratulations. Pictured with him are Arndt G. Kirchhoff, CEO KIRCHHOFF Holding, (l.) and J. Wolfgang Kirchhoff, COO KIRCHHOFF Holding, (2nd f.r.) as well as Simon Stephan, Managing Director KIRCHHOFF Automotive in China (r.), in front of the anniversary wall, which was signed by all the guests.

02 Around 1900 the export of the German needle industry was booming, especially to East Asia. Stephan Witte also benefitted from this development and employed a general representative for needles in China, who can be seen here with his son surrounded by Chinese merchants.



02





In 1925, a final attempt was made to optimize needle sales in China. Hans Kirchhoff, the newest partner of Stephan Witte & Comp. at that time, travelled to East Asia to find out about specific requirements in large cities and marketplaces. He even wrote a successful book about his experiences in the region. In the end, he succeeded in making Stephan Witte & Comp. a registered brand of needle products in China. The heyday of needle production was, however, not lasting. The Second World War brought exports to a standstill once again. In 1954, the era of needle production that was steeped in tradition had to be discontinued.

More than 50 years later, the Kirchhoff entrepreneurial family returned to the Middle Kingdom with the KIRCHHOFF Automotive business. Production commenced in 2006 at a rented assembly plant in Suzhou. The rapid development and huge potential of the Chinese automotive market meant that just one year later construction of a factory hall and administrative buildings began on an area covering 40,000 square metres in the Suzhou Industrial Park.

Thanks to strong economic development, this was followed by a subsidiary in Chongqing in 2010 and the commissioning of a third plant in Shenyang in 2013. Shanghai GM and Changan Mazda were among our first customers. Eventually, more first orders were received from Shanghai Volkswagen, FAW Volkswagen, Audi, VOLVO Truck, and BMW Brilliance. In the last three years, the customer portfolio has been extended to include Chery Jaguar Land Rover, Volvo Geely, and PSA (Peugeot/Citroën). Products are also being added at a rapid pace. Aside from steel, numerous vehicle components are now also being manufactured in aluminium at KIRCHHOFF Automotive in China. Special manufacturing methods have been established for this purpose, such as aluminium forming, welding, automated self-pierce riveting, and heat treatment. The plant is thus adapting to new customer requirements in the area of lightweight construction. »



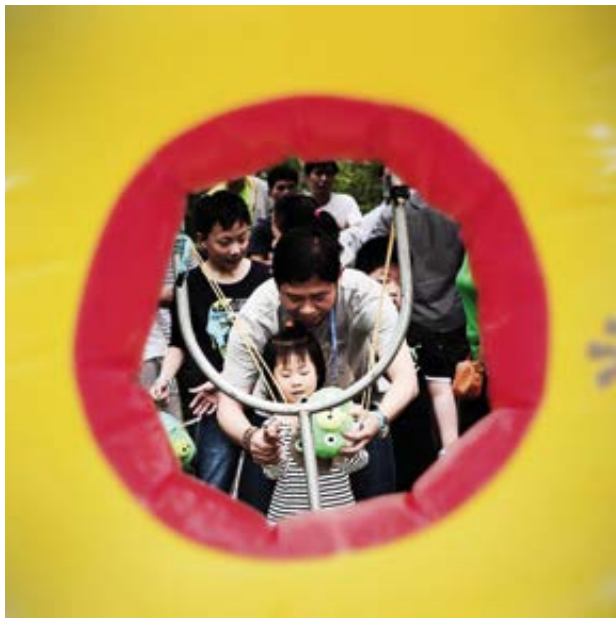
In bright sunshine and summer temperatures, the celebrations focused exclusively on KIRCHHOFF Automotive's recent years of success in Suzhou. Managing Partners Arndt and Wolfgang Kirchhoff, Managing Directors Dr. Thorsten Gaitzsch and Stefan Leitzgen, and the entire management team of the Suzhou location were delighted to welcome the numerous guests who expressed their thanks to the Company for the excellent cooperation over the last ten years. Particular congratulations were offered not only by the German Consul General but also by the Deputy Director of the Suzhou Industrial Park Administrative Committee in Suzhou, Ms Yanyan Sun, as well as many representatives from our customers in China. The Managing Directors from KIRCHHOFF Automotive in Suzhou, Wen Leyendecker and Simon Stephan, showcased the development of the Company from its beginnings in 2006 until today. And last but not least, thanks to the traditional performances, the celebration was an unforgettable experience for all who attended.

Happy Family Day—enjoying nature

A few weeks after the celebrations the employees of the plant in Suzhou celebrated their anniversary.

Almost 300 employees and their family members came to the Suzhou Yangshan National Forest Park and enjoyed various games and competitions with many prizes to be won. During lunch time there was a delicious barbecue. The guests had a wonderful day enjoying a great atmosphere and interesting conversations in the park.

Author: Simon Stephan

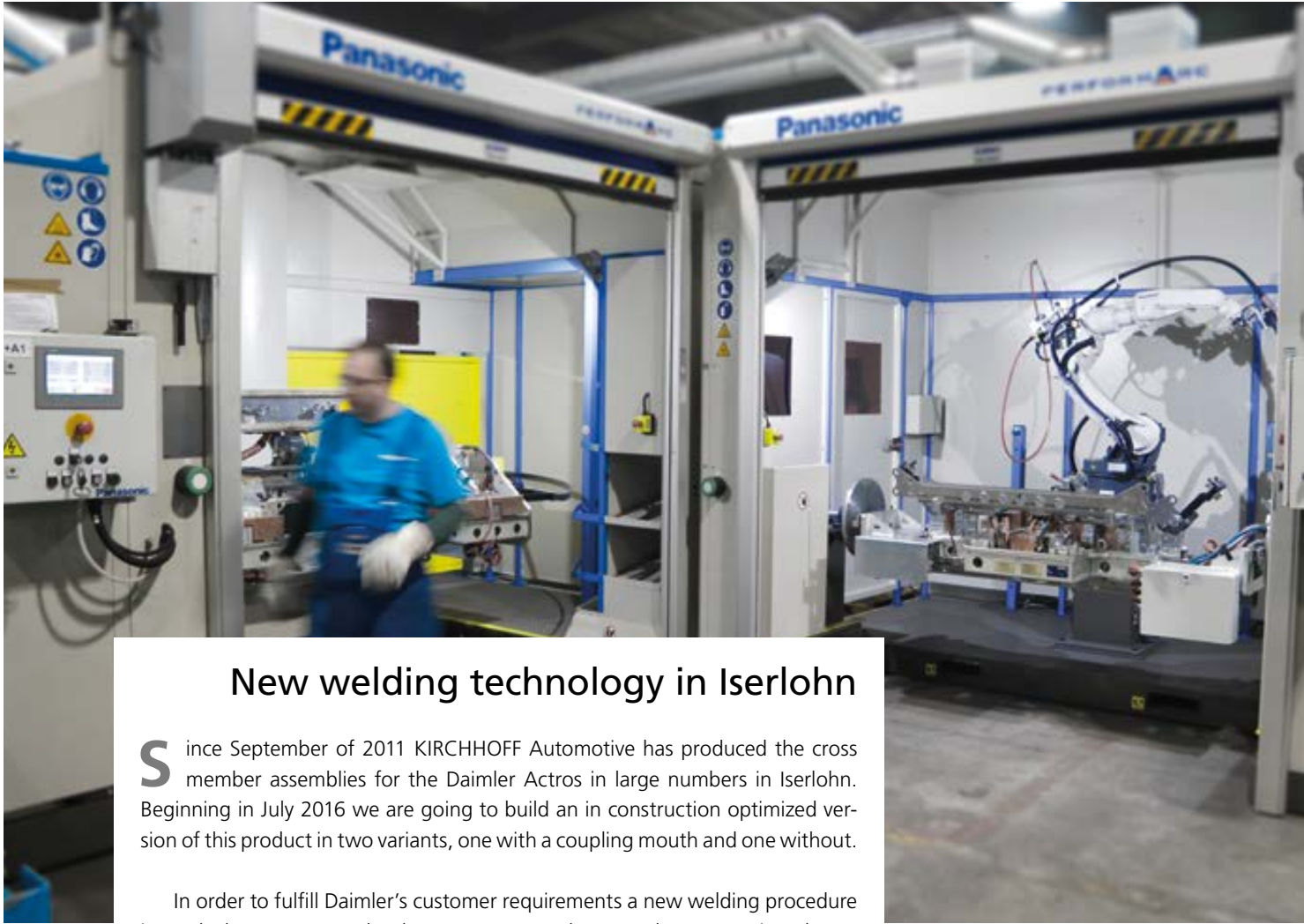


CLOSE TO THE CUSTOMERS

Our new Sales Office in Seoul, Korea is meant to improve the interactions with our customers Hyundai, Kia and GM Korea.

A regular exchange with the customers as well as support with regards to feasibility topics and development projects can be handled more purposefully in the future. Also a long-term growth with the Korean concern Hyundai-Kia, that is centrally organized in many areas, is only possible due to the proximity. The Sales Office initially starts with a Country Manager. It is planned that the team will be supported by CAD specialists and developing engineers later on.

Author: Nils Winkelmeier



New welding technology in Iserlohn

Since September of 2011 KIRCHHOFF Automotive has produced the cross member assemblies for the Daimler Actros in large numbers in Iserlohn. Beginning in July 2016 we are going to build an in construction optimized version of this product in two variants, one with a coupling mouth and one without.

In order to fulfill Daimler's customer requirements a new welding procedure is used: the TAWERS-technology Hyper DIP Pulse MAG by Panasonic Robot & Welding. The welding seams are welded in a way that efficient welding speeds at an optimal quality are reached. On the other hand, welding spatters that accumulate on the area of sensible mounting surface are avoided.

This type of welding requires a very fast communication between the robot control and the power source. A combined CPU for this technology makes this possible. Beginning in July 2016, it is planned to produce both variants in a two-step welding process with a total of 5,000 parts per month.

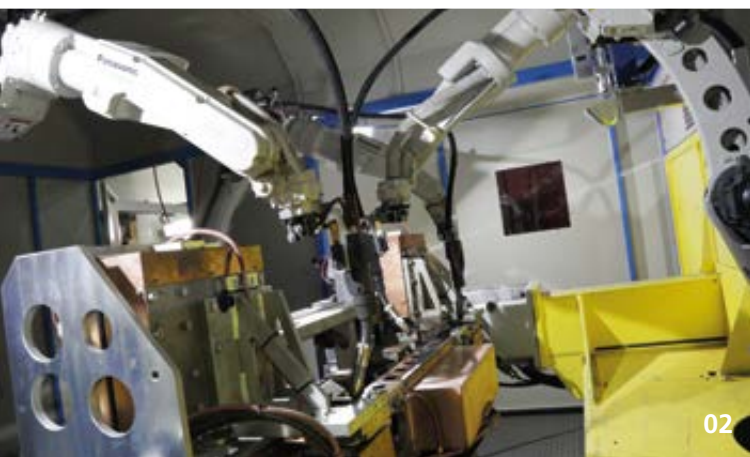
New high speed cell in Attendorn

The new welding cell consists of two Fanuc robots which weld the formed parts for the wheelhouse support of the Audi models A4 and A5 at a very high operating speed and maximum precision. The corresponding welding tongs by Centerline are, in comparison to usual welding tongs, extremely light allowing even faster movements. At the moment the welding cell is working to capacity with two and a half shifts per day.

Author: Artur Rath, Oliver Ibach

Economical and efficient with a high welding speed

For the production of the cross member assemblies for the Daimler Actros a new welding technology is used at the location in Iserlohn, Germany. In Attendorn, Germany a high speed cell is going to weld the wheelhouse support for the Audi model A4 and A5 at the highest speed.



01 New welding cell with two process units for the assembly of the cross members for the Daimler Actros series.

02 View into the welding cell with a compact layout of the welding robot by Panasonic.

03 The new high speed cell in Attendorn welds the wheelhouse support for the Audi A4 and A5 models.



Awarded for 'excellence'—with the Volvo Group Award

On February 23rd, Volvo Group's truck cooperation recognized 11 of their best suppliers and among them, KIRCHHOFF Automotive's Iserlohn location in Germany. The Volvo Group Purchasing Supplier Award is presented to selected suppliers for performance excellence and continuous improvement.

According to Volvo's CEO Martin Lundstedt, their suppliers are involved in 70% of the development of each vehicle, as well as its series production. This explains the special significance that the Volvo Group places on the supplier base. At the awards ceremony in the Swedish city of Gothenburg, it was clear how outstanding and competitive suppliers are in maintaining the Volvo Group's position at the forefront of innovation and research and development.

What distinguishes a successful supplier? Head of Volvo Group Purchasing, Patrik Lundblad, describes: "They are those suppliers who are prepared to go the extra mile to achieve excellent results in the project stage and later to ensure that all parts are delivered on time to our plants all over the world. This award is for all our suppliers who are only happy when our customers are happy."

This principle also applies at KIRCHHOFF Automotive. KIRCHHOFF Automotive's Iserlohn location was presented with the award for "Project Execution Excellence". The jurors praised the Company for its reliability as a supplier and for the quality of its products. The Company's excellence in pre-emptively recognizing and minimizing risks in terms of complex steel processing was particularly emphasized.

J. Wolfgang Kirchhoff, Managing Partner and COO of the KIRCHHOFF Holding, and Volker Tofall, Director of Truck Sales, proudly accepted the award. "I would like to commend the employees and express my gratitude to them—their dedication and effort have contributed to this success", said J. Wolfgang Kirchhoff after the awards presentation.

The Company first established business contacts with Volvo Trucks in 2006. Being selected for a large project in 2012 presented the whole team with new challenges. Products that had previously been manufactured directly at Volvo would from then on be produced at the Iserlohn plant. In total, ten Volvo tool sets had to be adapted to fit the presses at Iserlohn. 14 new tools and one new automated riveting process were also taken on. New standards were set by tight deadlines as short as 16 weeks from receipt of the tools to the first serial delivery, as well as a short production start-up phase. Sustainable and structured project management, along with an automated reporting system and uniform global standards, provided the basis for the successful completion of this project. As experience shows, success depends on many factors.

For the Director of Sales at KIRCHHOFF Automotive, Volker Tofall, it is clear: "Globally standardized processes and a highly motivated, customer-oriented team have finally led to this great result."

Author: Sabine Boehle



At the award ceremony of the Volvo Group Purchasing Supplier Award (f.l.t.r.): Volker Tofall, Director Sales; J. Wolfgang Kirchhoff, Managing Partner and COO KIRCHHOFF Holding; Patrick Lundblad, Head of Volvo Group Purchasing and Anna Cros, Quality Management Volvo Group.



**We all
bear responsibility—
for the next generation**

KIRCHHOFF Automotive supports the "InCharge"

initiative to combat youth unemployment in Europe.

In recent years, youth unemployment has reached record levels in some EU countries. This has a long-term impact on society as well as on the economy. To counteract this trend, the InCharge initiative was launched in 2014. InCharge supports and gives direction to young, talented people throughout Europe. Within a very short period of time, numerous well-known companies from industry and commerce, as well as institutions and public figures have joined the initiative—including KIRCHHOFF Automotive.

As part of the initiative, a coaching day took place at the end of May at the University of Porto/Portugal. Antonio Rosas, HR Manager at KIRCHHOFF Automotive in Portugal, led the organization of the event. Many young people, companies, and institutions accepted the invitation to share their experiences with a focus on improving career opportunities for young people in Portugal.

In his opening speech, J. Wolfgang Kirchhoff, Managing Partner and COO KIRCHHOFF Holding, emphasised: "Youth unemployment is one of the key issues with regards to a common future within the European Union. The fight against youth unemployment is a socio-political challenge. But, above all, it gives young people hope with respect to their future prospects."

The coaching day attracted 500 visitors, who received support and advice on their career planning in workshops and individual discussions with participating companies.

At the end of the day, Antonio Rosas was very pleased: "This has been a truly successful event that shows how we can all work together to help combat youth unemployment."

Authors: Lisa Kitterer and Antonio Rosas

Data security 2.0

— In order to protect our Company from data theft and computer viruses we have implemented a management system for information security (ISMS) which has been certified according to ISO 27001.



To our customers the protection of information like drawings or physical prototypes is extremely important. To secure that, access controls have been installed in all areas. All employees now have an access card for their area. They also use this card together with their password for the login process on their PC.

By using our security system we can assure that our protection goals of "confidentiality", "immutability" and "availability" are completely achievable. Which helps with the "risk based approach": In the case of critical IT applications or physical security areas we consistently apply certain actions, e.g. data encryption. We have developed a user manual with instructions as a guideline and also trained our staff in this new management system.

The system is continually revised and introduced to further KIRCHHOFF Automotive locations.

Author: Ulf Rass

On a growth

— In 2015, the KIRCHHOFF Automotive plant in Esztergom, Hungary, kicked off three considerable construction projects. They are intended to increase employee satisfaction and further improve competitiveness.



The new logistics area offers plenty of space.

path

New distribution centre

In order to optimize the logistics processes and make them more cost-efficient as well as competitive, dispatch logistics will be managed in-house in the future. On April 30th, the contract with an external logistics service provider was terminated. Previously, the dispatch area was located in two halls, with open-air container storage. Now, a modern warehouse serves as the logistics centre in which all distribution tasks are handled by in-house personnel. The equipment and forklift trucks meet the latest standards.

The building was completed at the end of last year and leased by KIRCHHOFF Automotive for the next ten years, with the option of purchasing the property at that time.

The new logistics centre is housed in a 6,143 sqm hall with 7 m tall ceilings. It can be accessed through six covered gates. Every day, 42 employees load up to 1,000 containers or 120 trucks.

Expansion of the administration building

The steady growth of the KIRCHHOFF Automotive plant in Hungary made it urgently necessary to expand the office and social facilities. This project has now finally been completed. The administrative area was expanded from 888 sqm to 1,220 sqm. The new building includes modern offices and conference rooms as well as break rooms and locker areas for storing personal items. The previously used building has also been renovated and expanded to accommodate conference rooms, storage, and locker areas in order to meet current requirements. Moreover, a separate consultation room for the plant physician was added.

These measures serve not only to meet local standards, but also to specifically improve employee satisfaction at the Esztergom location.

Infrastructural improvements

In an effort to gain additional space for operational purposes, a new employee parking lot was installed outside the plant premises. Access to the plant and the parking lot is provided through a new road with appropriate connections, pavement, bus stops for employee buses, and a bicycle shed.

Author: Géza Kortvelyessy

Top: The newly expanded administration building includes modern offices, conference rooms, social areas, changing facilities, a cafeteria, and even a room for the plant physician.

Bottom: In the new dispatch warehouse with a floor space of 6,143 sqm, logistics processes can now be controlled more efficiently and economically.

Our Vision and Values live

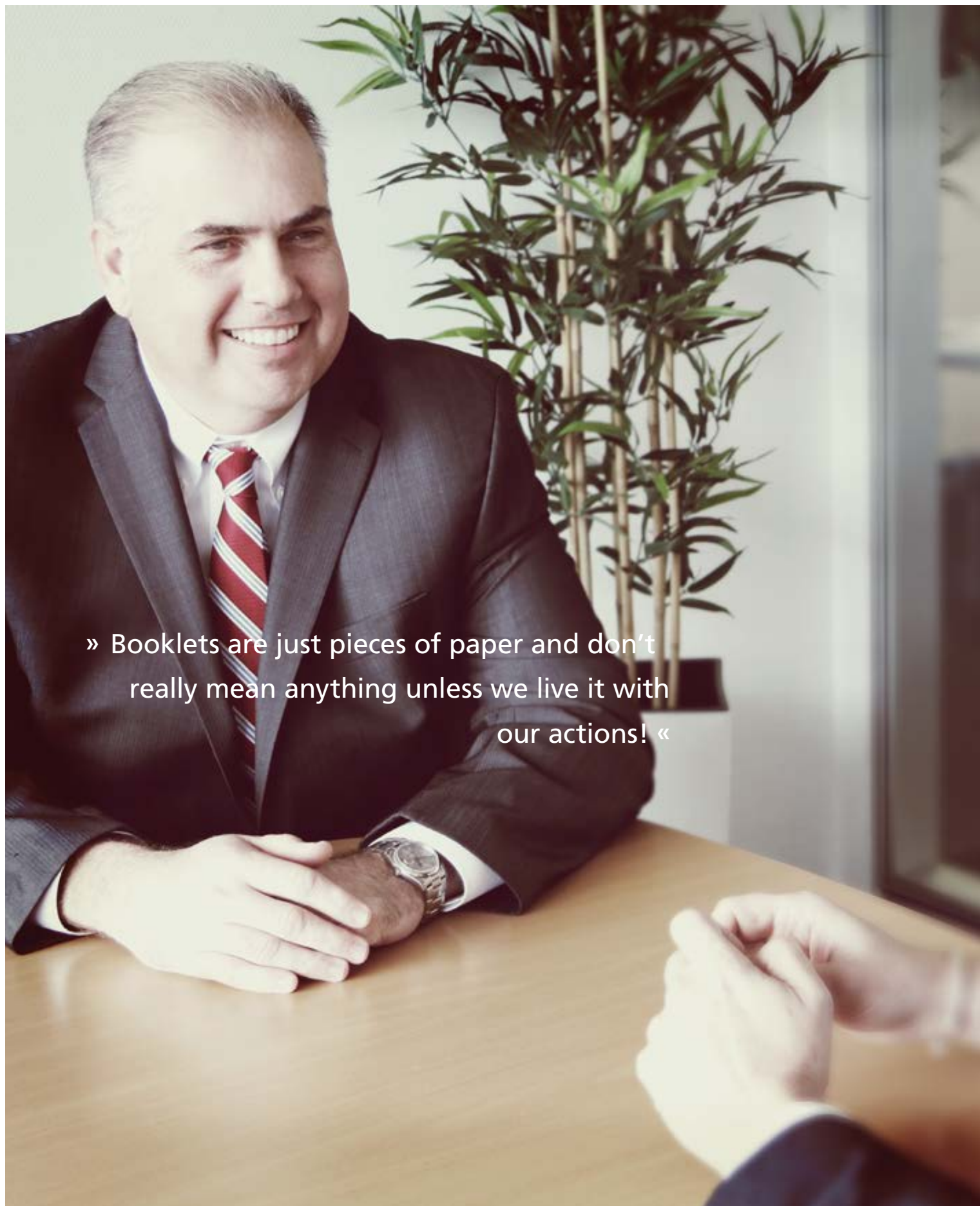
— At the beginning of the year, all 8,000 employees worldwide received the new “Vision and Values” booklet from KIRCHHOFF Automotive. At its heart, is the vision of the family shareholders. Based on these principles, employees from various departments around the world jointly developed our values and code of conduct.



Hasan (l.) and Nils Kaya (r.), father and son, have been working together in the welding department for many years.




» Honest and reliable, that is KIRCHHOFF Automotive – and that is what we are – and have been for generations. «



» Booklets are just pieces of paper and don't
really mean anything unless we live it with
our actions! «

Paul Dilworth (l.), Executive Vice President Global Human Resources, during the interview with Andreas Heine, Director Corporate Communication & Marketing.



A small booklet describes our Vision and Values and makes them transparent and comprehensible for all employees at KIRCHHOFF Automotive. After the roll out of the booklet in all locations worldwide we asked Paul Dilworth, Executive Vice President Global Human Resources, how he evaluates the roll out.

The booklets are delivered in all plants. How did the employees perceive them?

Paul Dilworth: The booklets have been very well received at all locations. The quality of booklets demonstrates to all employees how serious this topic is in our organization. Also, with top management presenting the details personally, it shows the complete commitment to this company defining topic.

Is there a difference in the reception of the booklets based on the different plant locations?

Paul Dilworth: As I have said on many occasions before, people are very much the same regardless of where they happen to be in the world. What's important to an employee in North America is generally the same as our employees in Europe or Asia. All employees feel an equal need for complete clarity of company Vision, Values and Behaviors as this creates the foundation of how we operate on a day to day basis.

Values and Behaviors must be lived. How are you planning to keep this mentality, continuously in the forefront of our employees' minds? How important for a company is it to practice their Vision, Values and Behaviors?

Paul Dilworth: Booklets are just pieces of paper and don't really mean anything unless we live it with our actions! We will be utilizing our internal media to show examples of our people demonstrating our Visions, Values and Behaviours and how important they are to the welfare our employees and company.

In the last year we have started several global HR projects. Do you think these are changing our employees' view of our company?

Paul Dilworth: I believe that employees have always viewed KIRCHHOFF Automotive as an organization that cares about them both personally and professionally. The Global HR projects have strengthened this feeling by formalizing consistent world class programs such as Succession Planning, KIRCHHOFF Automotive Talent Education (KATE), Leadership Development, KIRCHHOFF Automotive Excellence Award etc. This is also a strong indication that we are a truly "Global" company with limitless potential for our employees.

The interview was led by Andreas Heine, Director Corporate Communication & Marketing KIRCHHOFF Automotive.



» Standards make
the job safer
and easier. «

Chunyu Tan, Welding Setter Supervisor

» Clear and open
communication is the
key to success. «

Paloma Herrera,
Human Resources Manager, Querétaro



» I like sharing
my knowledge. «

Stefan Jeziorski, for over 15 years he has
been leading the apprentices' training
program where he takes care of future
generations.





» We are a successful team. Precisely because we come from different countries. «



The last few steps are done: The fence around the kindergarten in the Romanian Leordoasa is newly painted, trees and roses are planted and the alley has been plastered. Colorfully painted Snow White and the Seven Dwarfs shine on the outer facade of the building.

Over months many employees from KIRCHHOFF Automotive in Romania volunteered in repairing and restructuring the institution.

One year ago the kindergarten, which is especially attended by children from poorer families, was in a desolate condition. With the aid of donations from our plants in Poland and Germany as well as the support from local authorities the kindergarten could be renovated (also see article in K>MOBIL No. 46, pages 60 and 61). Today it is a place where the children and educators can feel good again.

An accomplishment all involved parties can be proud of.

Author: Gabriel Porojan



Together for children



01

01 After the renovation: a place where children and educators can feel good again.

02 Before the renovation: a ramshackle building with a broken roof and floor, collapsed ceilings and a broken heater.

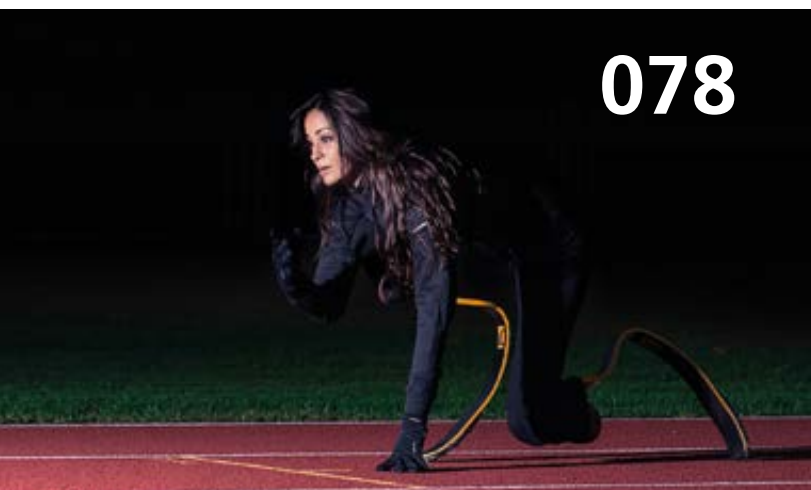
03 In the end everyone agreed: "It was a lot of work but it was also a pleasure to create a place worth living for the children."



02



03



- 074** Working to support independent living and when driving really does offer more
- 078** From cruel twist of fate to elite sport
- 080** Barrier-free school buses for Hamburg

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 **KIRCHHOFF**
MOBILITY

Custom-made cars



**Working to support
independent living and when
driving can really offer more**



01



02

— The Geneva Motor Show is renowned for its presentations of concept cars and vehicle studies, and it is where automobile manufacturers share their vision of future mobility. KIRCHHOFF Mobility shows how even disabled people can regain some of their freedom through custom vehicle modifications.



01 Abassia Rahmani knows what she is talking about when discussing KIRCHHOFF Mobility vehicle conversions. Because of an illness, she had to have both of her lower legs amputated when she was 16 years old.

02 The wheel chair lifting platform SF-350 shows how easy it can be for a wheel chair user to regain mobility with a converted vehicle.

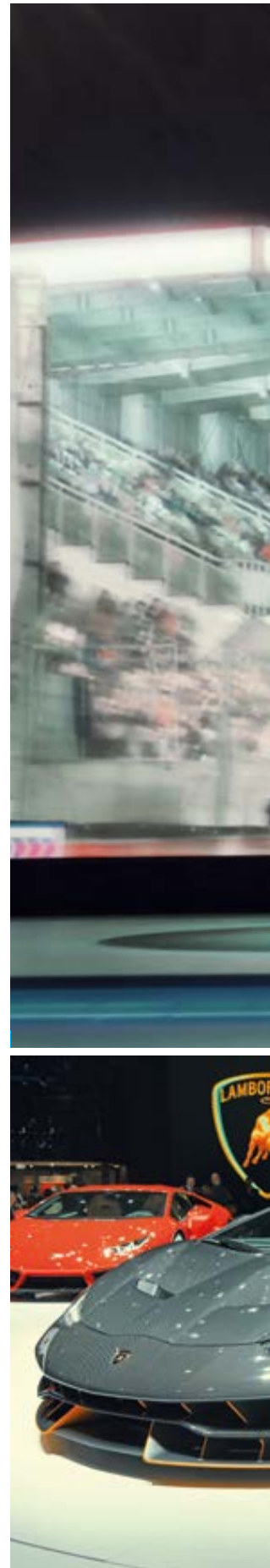
At the age of 18 I got my first car converted by KIRCHHOFF Mobility, it gave me freedom and independence. It was totally cool.” The eyes of 23-year-old Abassia Rahmani light up. She leans against the dark blue Mercedes Viano at the trade fair stand in Hall 6 of the Geneva Motor Show. With her curved carbon prostheses, the slim athlete appears even lighter; she almost seems to float. She knows what she is talking about when discussing KIRCHHOFF Mobility vehicle conversions. Because of an illness, she had to have both of her lower legs amputated when she was 16 years old. Today, she is a successful Swiss athlete with a chance of competing in the Olympics. Thanks to the conversion of her car, she is mobile again—a prerequisite for participating in competitive sports. Her Audi A3 has been converted so that she can now use her hand to accelerate and brake safely. This allows her to participate in national and international competitions independently and without assistance (see interview on next page).

Thanks to her involvement in the KIRCHHOFF Mobility trade fair team, interested visitors at the Geneva Motor Show were able to discover a real-life example of how a professional vehicle conversion can make daily life easier. And there was great interest once again this year. Numerous visitors found out about the range of in-house vehicle conversions that can be carried out by KIRCHHOFF Mobility, demonstrated by means of a VW Caddy Maxi with rear entry for passengers. The Mercedes-Benz Viano for drivers with reduced mobility was examined in detail time and time again and its numerous functions tried out.

Managing Partner J. Wolfgang Kirchhoff was pleased to observe that the brand awareness of KIRCHHOFF Mobility has increased further with the second appearance in Geneva: “Experts in the sector as well as our automobile manufacturer customers, who know us through KIRCHHOFF Automotive, are amazed and especially interested to find out that we also operate in the mobility sector. This benefits the Company as a whole.”

Over the course of two weeks, Pascal Fossa, Managing Director of the Swiss subsidiary of KIRCHHOFF Mobility, and his team showcased the extensive product range by means of two demonstration vehicles and through the use of interactive touchscreens. From driving, operating, loading, and access aids to seating, steering, and braking systems through to rear-entry and bus transportation of people with disabilities—the range of services offers ideal, individualized conversion solutions. As every instance of reduced mobility and physical disability is unique, vehicle conversions must also be customized. It is particularly rewarding when your work allows someone to lead an independent life—something that always delights Pascal Fossa: “It is wonderful to see the great joy on the face of a driver when he or she is able to regain some freedom through their converted vehicle.”

Author: Andreas Heine





01 At the KIRCHHOFF Mobility stand (f.l.t.r.): Paralympics contender Abassia Rahmani | Arturo Martines, KIRCHHOFF Mobility employee in Switzerland | Pascal Fossa, Managing Director KIRCHHOFF Mobility in Switzerland | J. Wolfgang Kirchhoff, Managing Partner and COO KIRCHHOFF Holding | Andreas Heine, Director Corporate Communication & Marketing | Axel Panne (Dr Eng), Managing Director KIRCHHOFF Mobility



01

Today, the 23-year-old from Switzerland is a successful top athlete with a great chance of being able to compete in the Paralympic Games in Rio de Janeiro this autumn. Abassia Rahmani is sponsored by KIRCHHOFF Mobility. At the Geneva International Motor Show, she supported our trade fair team in the presentation of our adapted vehicles for people with limited mobility.

After such a cruel twist of fate, how have you managed to regain your positive attitude?

In the beginning, I felt awful. Then I saw people who had been injured worse than me and were totally positive. Somehow that flicked a switch in me and I was ready to give 100% again. At first I didn't want my friends to see me this way, but they just came anyway. I remember being on a skiing holiday with them and, while I was still asleep, they stuck my legs outside in the snow, which obviously looked really strange. They called me and told me to have a look—they thought it was hilarious. That's when I knew they were relaxed about it. It helped me a lot.

Do you think you've changed?

Maybe I think more about how I live my life. But I haven't changed as a person. My friends would confirm that. If you ask yourself why, why me, then you can't move on. It will get you nowhere, it leads to negative thoughts, it achieves nothing. My motto is: look ahead, give it all you've got.

How do people react when they see sport prostheses for the first time—here at the trade fair, for example?

People are either really enthusiastic and come up to me, or they stop and stare at me, without meaning to. That's when I start to laugh—and they're still staring at my legs. At sporting events it's no big deal. They see that I'm active, I'm not hiding away in my shell. But children are the best. They are really interested and curious. They see me as a superhero and ask: "Where did you get your legs? I want some as well."

How did you get into sports?

I have always done a lot of snowboarding and athletics. When I started to get into sports again with my prostheses, I met a Paralympian. He told me to just have a go and fitted carbon-fibre blades onto my legs. They felt great straight away, light and fast. Normal prostheses are more like ski boots. Ever since, my friends and fellow athletes call me the "gazelle".

What was it like to drive a car for the first time?

At the age of 18 when I got my car, which had been converted by KIRCHHOFF Mobility, it gave me freedom and independence. It was totally cool. And now I'm on the road quite a bit, especially because of sports. There's no way I could do all of that without a car adapted to my needs. I train six times a week for sprint and long jump, and in the summer there are competitions every week in Switzerland and all over Europe—so I need my car.

The interview was led by Andreas Heine

From cruel twist of fate to elite sport

— At first, she thought it was just a cold or maybe even the flu. But when 16-year-old Abassia Rahmani awoke from a coma six weeks later, her lower legs were gone. As a result of a serious viral disease, they had to be amputated to save her life.



Picture from Olivier Pagès



— The REHA Automotive Group subsidiary in Hamburg, Germany, was able to secure and successfully implement the largest project in company's history. In a record time of eight weeks, 31 barrier-free school buses were converted for the bus operator Elite Traffic GmbH.

The KIRCHHOFF Mobility subsidiary in Hamburg has converted 31 Sprinters into barrier-free school buses for Elite Traffic GmbH.



Barrier-free school buses for Hamburg

REHA Automotive Group is part of KIRCHHOFF Mobility and has been one of the leading manufacturers of structures for handicapped-accessible vehicle conversions for the past 30 years. However, converting remove 31 Mercedes-Benz Sprinters presented a special challenge for the company.

The customer was the Swedish company Bergvarabus, through its German subsidiary Elite Traffic GmbH. The company won the bid for transporting students in Hamburg for the first time and recognized that it would need to bring its fleet of vehicles into compliance with the Euro 6 environmental standards. Consequently, it purchased 31 new Mercedes-Benz Sprinters, of which 16 had to be converted into omnibuses and 15 into nine-seaters.

The omnibuses required an emergency exit hatch, an aluminium floor system with 16 seats, a 2,800 mm long ramp, and various accessories for safety and convenience. The nine-seaters also needed to be equipped with a 2,800 mm long ramp, an aluminium floor, and an additional hydraulic rear-end lowering system.

The entire conversion was handled by the REHA Automotive Group subsidiary in Hamburg, while meeting strict organizational and logistical requirements. First, all materials had to be supplied, stored, and pre-assembled. Additional warehouse space was leased and more personnel was hired. The central office in Hilden and branches in Berlin and Bad Zwischenahn provided active support. KIRCHHOFF Mobility executed this large-scale project in a very short period, delivering in the highest quality and on time. Dr Axel Panne, Managing Director of KIRCHHOFF Mobility, was delighted with the success of the project. "This project is unique to date and demonstrates our expertise with motor vehicles for people with reduced mobility. It strengthens our reputation in view of further business opportunities in this market segment."

Author: Sven Werra

In Hamburg, inclusion starts with the ride to school—made possible by barrier-free school buses.





082 We understand our craft

086 Tools "Made in Germany"

080 - 089

 **WITTE**
WERKZEUGE

When function and
effect are in line.

We understand our craft





— The 40th International Eisenwarenmesse in Cologne was a successful event for WITTE Werkzeuge. The manufacturer of high-quality screwdriving tools made an impact with the design of a new stand as well as product innovations adapted to the requirements of the professional craftsman and DIY customer.

In total, approximately 2,700 suppliers from more than 50 countries were represented at the exhibition, which has now become the leading trade fair for the international hardware sector.

The exhibition featured products, innovations, and trends from the tools, industrial supplies, fastening and fixing technology/connecting fittings sectors, as well as do-it-yourself (DIY) and home improvements. Over the course of the trade fair, which was shortened from four to three days, an outstanding selection of high-quality content as well as an extensive range of information were shown in over 144,200 square metres.

This year, WITTE Werkzeuge was not only represented by an exhibition stand, but it also showcased select products for the home handyman on the DIY Boulevard. The tool specialist introduced the "Made in Germany" range of pliers—a completely new product line. Alfons Bolling, Sales Manager at WITTE Werkzeuge, is confident: "By expanding our product range in this way, we are now able to design tool sets that meet customer requirements even more closely and are adapted for specific applications."

Visitors to the Eisenwarenmesse (International Hardware Fair) were able to try out the tools for themselves at various activity tables. These practical tests clearly demonstrated the benefits of the products. For example, when using a screwdriver with microfibre coating, more pressure can be applied with less effort. The Impact Bit, which has been specifically developed for cordless impact screwdrivers, has an extended torsion zone. While the conventional 25-mm-long bits used with cordless screwdrivers snap within fractions of a second, the Impact Bit can tighten a bolt without fracturing.

WITTE Werkzeuge draws a positive conclusion: "Top-quality and new 'Made in Germany' products were popular with dealers and end users alike. We were able to have many successful discussions regarding future orders with national and international customers."

Author: Alfons Bolling



01



02

01 International customers showed great interest in the new Impact Bit from WITTE Werkzeuge. J. Wolfgang Kirchhoff, COO KIRCHHOFF Holding (3rd f.l.) and Gerhard Janosch, Production Planning (3rd f.r.) in discussion with Hector Xu, Product Director SATA Tool Shanghai (l.) | Jason Wei, General Manager DANAHER Tool Group (2nd f.l.), and Cherry Shen, Marketing Manager KNIPEX Tools Shanghai (r.).

02 The WITTE Werkzeuge trade fair team.

03 With WITTE Werkzeuge screwdrivers, even major projects are easy work, as shown in a video that was presented at the Cologne Eisenwarenmesse.



03



Watch the video:
youtu.be/pCsoAwftskE



Tools "Made in

As a manufacturer of screwdriving tools in the premium segment, WITTE Werkzeuge offers its customers excellent "Made in Germany" quality as well as exclusive marketing and branding concepts. The current product range meets the highest standards for ergonomics and materials.



The multi-functional VDE wire cutter provides six functions in one tool: it can be used as a wire stripper, flat cutter, wire cutter, and ferrule crimper. Furthermore, the tool can also shear off brass screws and bend eyelets. Its outstanding ergonomics ensure accurate and effortless operation.



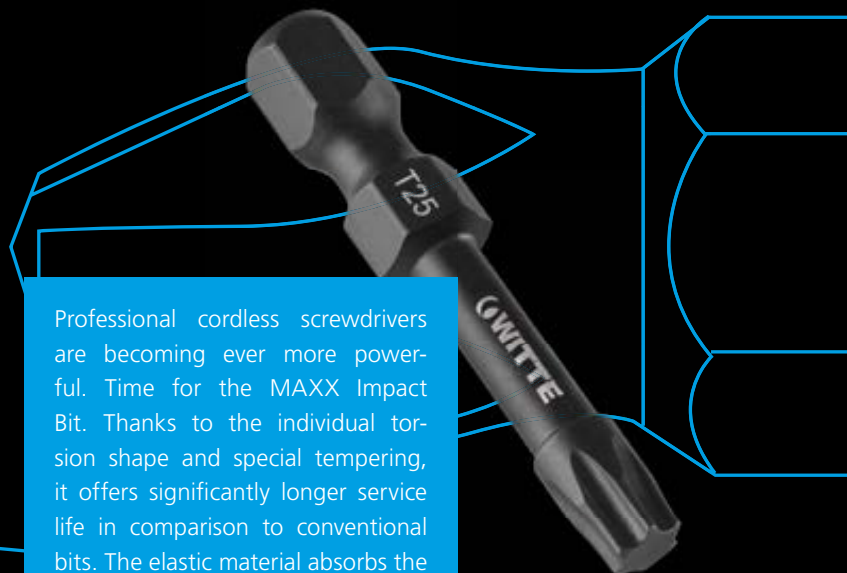
Jochen F. Kirchhoff (Dr Eng), Chairman of the Advisory Board and of the Shareholder Circle of the KIRCHHOFF Group, opted for the VDE set with voltage tester, pliers, and VDE screwdriver. Extremely practical: the packaging consists of a pouch that can be attached to the belt.

Germany"

Author: Frank Rohlfs



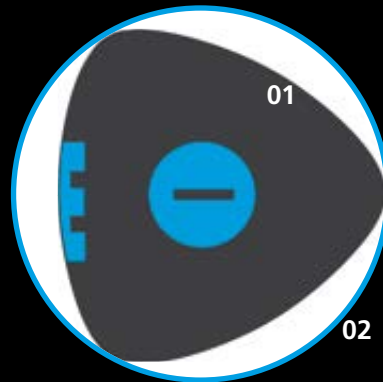
The WITTE MAXX range of pliers is characterized by induction-hardened cutting edges, ergonomic dual-component handles, and high-quality materials.



Professional cordless screwdrivers are becoming ever more powerful. Time for the MAXX Impact Bit. Thanks to the individual torsion shape and special tempering, it offers significantly longer service life in comparison to conventional bits. The elastic material absorbs the impact of the screwdriver and thus effectively protecting the bit. The compact design with a length of 38 mm enables the direct use in an impact screwdriver without the use of a bit holder.



**MADE IN GERMANY
SINCE 1785.**



The advantages of MAXX screwdrivers:

- Proven triangular shape creates the perfect angle of rotation for the hand (120°)
- Quick-turning area made of soft material makes for safe and comfortable use
- Permanently labelled, matt-chrome blades made of special highly tempered steel in all profiles
- Black blade tips for the utmost precision

01 Rounded triangular shape for improved transfer of force

02 The circular cross section combines maximum grip with easy operation



The basic equipment is clearly visible and easily accessible in the practical tool wallet.

The multi-functional VDE wire cutter provides six functions in one tool: it can be used as a wire stripper, flat cutter, wire cutter, and ferrule crimper. Furthermore, the tool can also shear off brass screws and bend eyelets. Its outstanding ergonomics ensure accurate and effortless operation.

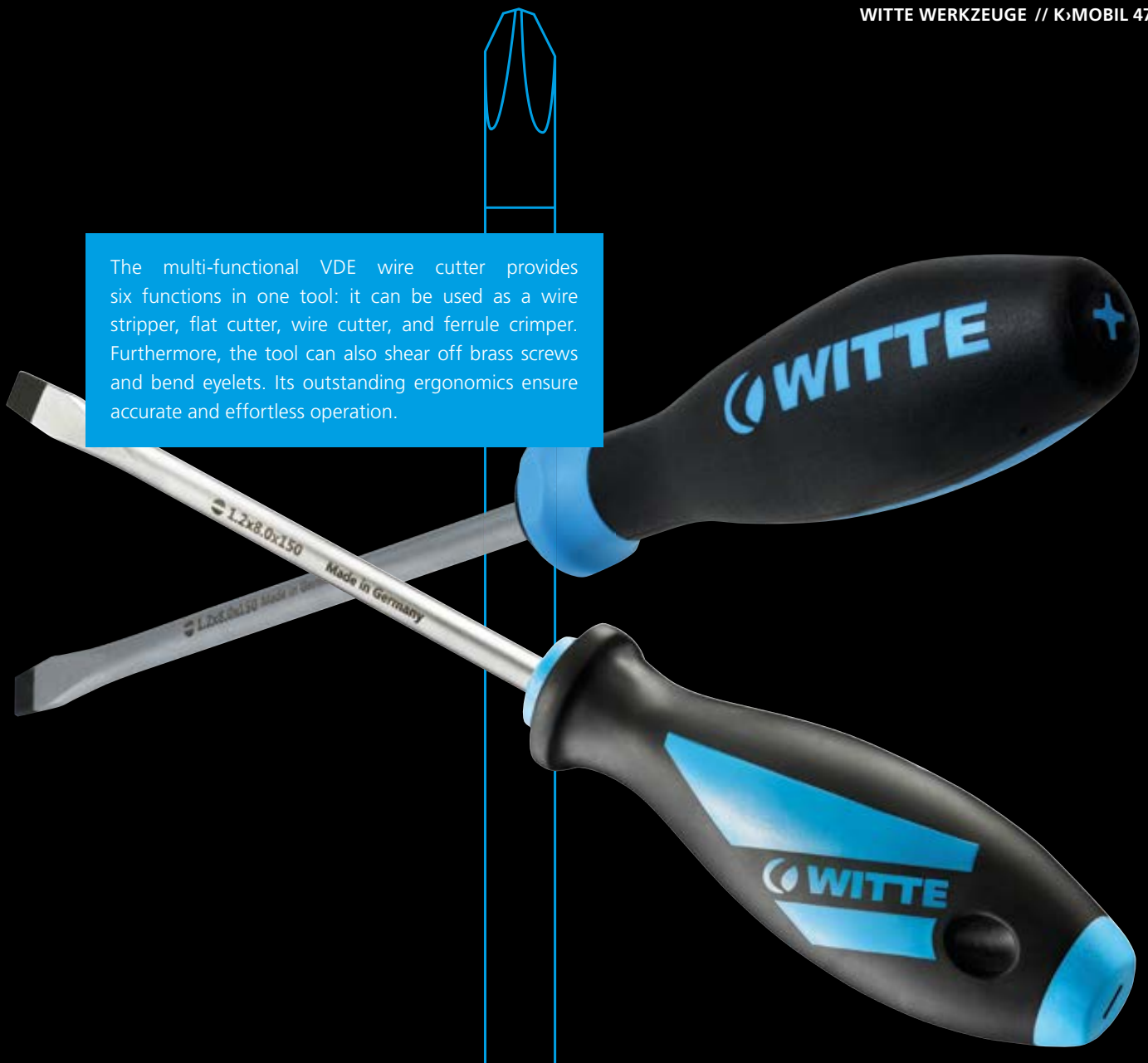
With minimum effort, MAXX tools achieve maximum transfer of force and efficiency. The curved linear contour of the ergonomic handles enables high axial forces with little effort. This creates high contact pressure, effectively preventing the screwdriver from slipping out of the screw. Its soft edges make the handle comfortable to grip and enable maximum torque to be generated.

Look inside

The products can be viewed through the packaging.

Market-oriented range

Exactly what the customer needs. Developed on the basis of long-standing knowledge from practical use.





FAUN Group

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 **KIRCHHOFF**
ECOTEC


 **FAUN**
KIRCHHOFF GROUP
RELIABLE
PROGRESSIVE

 **ZOELLER**
KIRCHHOFF GROUP

Technik entscheidet

It's showtime.

**Strong service and
26 product highlights**

A woman with long brown hair, wearing a light grey button-down shirt and dark blue jeans, stands with her hands on her hips next to a white truck. The truck has a blue sign on its side that says "Don't worry, be happy!". The ground is covered in wood chips. In the background, there are other exhibition vehicles and a building with a sign that says "HERZAN WELCOME".

This years IFAT exhibition also marked a special anniversary for FAUN. It was the 15th time our group of companies had taken part in the trade fair, it was an outstanding event with high-flying international guests. FAUN placed its focus at the IFAT on user-optimised disposal technology and tailored service concepts. With the cheerful invitation to the customer "don't worry, be happy!" - i.e. concentrate on your job and don't panic, we will always uphold our end of the bargain - we presented our entire range to the exhibition visitors with the live demonstration of our superb examples of strong service.

IFAT news regarding refuse collection vehicles:

In addition to displaying our range of products and services, we presented three world firsts to the expert audience. The **Reversing Safety System (RSS)** attracted particular interest. The RSS is a unique solution that we have developed – the first of its kind in the world – for protecting operating personnel who are riding on the footboards of the waste disposal vehicle. At the moment, vehicle loading personnel are not permitted to stand on the footboards while the vehicle is reversing. Of course whilst collecting recyclable materials, it is par for the course that the vehicles do sometimes have to travel backwards. And this is where our concept comes in. We want the loading personnel to be able to stand safely on the footboards, and ensure that the rear working area, which the driver can only see to a limited extent, is protected. The loading personnel are secured by a strap, which they must hold firmly with both hands. Sensors are built into the gripping section of the strap, meaning that as soon as the operator lets go, or operates the additionally mounted hand brake, the vehicle will stop. In this way, dangerous situations can be avoided. The RSS is currently being installed in customer vehicles for testing purposes. (more about RSS on page 010 & 011.)

In order to provide waste management companies with even more opportunities, we expanded our lifter range for the SIDEPRESS, with four new variants. The company showcased its proven **C1100 lifter**, designed for the collection of 60 to 1,100 l containers via double-comb or double-diamond attachments. In addition, there was the **C1100 vertical**. This lifter provides customers with the first ever lifter a with true 'close pick-up'. The third new lifter is the **F3000**, designed for the collection of large containers up to 3.2 m³ in volume, with 1.5 t lifting force. The F3000 is designed for central collection, and can make a significant impact in terms of reducing logistics costs, as fewer stops are required and large containers can be lifted up more quickly and more safely, in a side loader that only requires the operation of a single person.

With our other world first, the **SIDEPRESS FC1100**, we are revolutionising below-ground systems. The lifter can pick up containers of up to 3.2 m³ via its pin, comb or diamond attachment, both above and below ground: a single investment allowing two applications. In classic below-ground systems, containers are opened from the base and are therefore not leak-proof. In addition, a large, manually operated crane body is also required, to lift the container out of the ground. This necessitates a great deal of space and effort. With this globally unique and innovative system for below-ground containers, we offer a perfect solution in terms of design, cleanliness and logistics. The FC1100 lifter lifts the container from the ground and empties it into the vehicle body – without the driver needing to leave the cab. »





IFAT news regarding road sweepers:

The challenge of providing sweeper operators with a modern, comfortable and easy-to-use work space has been realised by our colleagues in Grimma, with the new **modular cockpit** for the **VIAJET STREAMLINE** road sweepers. The machine. The modular design caters for both standard machines and special models, particularly power-class models, with a single operator concept. The new cockpit is a convenient combination of modern CAN technology with a tried-and-tested user interface. Functions such as the FAUN telematics system myFAUN can also be integrated into the easy-to-operate solution.





Burkard Oppmann, the Managing Director of FAUN Services GmbH and Head of Sales in Germany also praises the positive results of the five days in Munich: "The IFAT 2016 was a real success story for our team, including our colleagues from Export. I am personally very pleased about winning the VAK innovation prize for our RSS. We go away with a wealth of positive impressions; we were able to lead various intensive discussions, and our exhibition motto regarding full service and superb specimens made for a brilliant presentation of our services. We would like to say a huge thank you for the attention from visitors, for the friendly exchanges of ideas, and for the positive feedback regarding our products and services. Goodbye from Munich and we look forward to seeing you at IFAT 14th - 18th May 2018."

Author: Claudia Schaeue



— FAUN exhibited two special sweepers from the power class for construction site experts at BAUMA 2016.

For years now the team at FAUN Viatic has been dedicated to the challenge of providing effective sweepers for a wide range of cleaning applications. FAUN presented two of these models - VIAJET 8 R/L HS and VIAJET 12 R/L HS - specifically for heavy-duty construction site applications in April at the biggest trade fair for construction machinery worldwide, BAUMA in Munich.

VIAJET 12

The VIAJET 12 is the largest sweeper in the product range of FAUN Viatic from Grimma. The model on a VOLVO chassis exhibited in Munich is part of the fleet of the LOPES company from Switzerland. We would like to sincerely thank the team for entrusting us with the loan of its sweeper. In addition to the standard 4,700l water volume, the model will also feature an extra 1,200l water tank, providing more scope for enhanced cleaning performance on, for example, motorway construction sites. To cope with the challenges of large construction sites, the machine is equipped with an SC250U surface suction system and a HYDROJET system. The water supply is powered by a hydraulically driven high-pressure water pump with an output of up to 136l at max. 300 bar. The sweeper provides maximum performance for unbeatable cleaning power.



For the toughest of challenges

Author: Mario Ringl

VIAJET 8

The VIAJET 8 was exhibited for the first time with the enlarged 1,900l primary water tank. The total water volume increases to 2,600l in the series production model, and can be further extended by extra water tanks which are located between the cab and body. For applications in a very dirty construction site, the vehicle was fitted with a hydraulically driven high-pressure pump with an output of 140l/200 bar. Various equipment options are possible for the machine. The new SC250U surface suction system is fitted at the rear of the machine and features a modular design. Depending on customer requirements, a range of different nozzle systems can be fitted (FLATJET, TURBOJET or HYDROJET). The surface suction system can be moved to the left and right hydraulically, by up to 150 mm in each direction, protecting the shoulders of the tyres when cleaning cut edges. The VIAJET 8 is powered by the FAUN HS 2000 hydrostatic drive. Its reliability and efficiency, along with low operating costs, delight every customer, while its high level of driving comfort wins over the sweeper operators.



Cleanliness for

— From Grimma to Bremen: A FAUN VIAJET is now also being used at Bremen Airport.



©Bremen Airport

aviation leaders



The nearest airport to the FAUN main factory in Osterholz-Scharmbeck, Lower Saxony is Bremen Airport. Therefore it is all the more satisfying and gratifying for FAUN that its home airport is making use of FAUN's sweeper technology. The airport staff in Bremen use a VIAJET 7 R/L HS. This sweeper works with a high-performance hydrostat HS 2000 and with its extension units, front brooms and rear suction unit ensures cleanliness on the entire airport site. Along with conventional sweeper use, VIAJET 7 is also used for the absorption of de-icing agents and in addition to this, cleans the hangars as well as the surfaces of Airbus. Björn Schmitz, Head of Ground Handling at Bremen Airport said the following about the decision to use VIAJET: "We decided to use a FAUN sweeper because we were convinced by the sweepers' simple operation, high manoeuvrability and high suction performance. The machine convinces us every day during use that it was a good decision." Safety and cleanliness thanks to VIAJET, so that aeroplanes can safely reach their heights.

©Bremen Airport

Author: Claudia Schae



Clear polar nights and clean roads

 A VIAJET 12 sweeper provides cleanliness in the heart of Helsinki.



During the development of the VIAJET 12, the engineers from Grimma always had in mind a customer who is out and about on the roadwork and has to wash and clean large expanses of milled surfaces. The city of Helsinki manages the situation more efficiently than us, and has shown us that a city is also able to make use of a VIAJET 12. After a long tendering process in 2015, FAUN received the order to build the sweeper which was then delivered together with a VIAJET 6 to the city of Helsinki in October 2015. Jens Hofmann, Head of Technical Support at FAUN Viatic, held a driver training session for these highly complex machines just after the winter, and in doing so was able to satisfy the curiosity of the drivers.

The VIAJET 12 Helsinki is equipped with the maximum sized water system and can carry up to 6,700 litres of water. A 120l / 120 bar water pump provides the FLATJET bar behind the brush, in front of the suction shafts and behind the disc brooms with water. The strength of the full power and suction power of the VIAJET 12 can be seen in simultaneous sweeping mode. With a sweeping width of over 4,000mm it is the perfect choice for washing the wide streets of the city of Helsinki and absorbing the dirty water at the same time. Powered by the hydrostatic drive FAUN HS 3000, the machine offers an optimum cleaning performance with maximum comfort for the driver and minimal use and noise pollution for the environment and the inhabitants of Helsinki.

Author: Mario Ringl

A Berliner in Swabia

With his direct "Berlin"-style way of talking and knowledge of the industry, Karsten Schwanke manages the FAUN Service Centre in Stuttgart and Mainz

Karsten Schwanke has been the head of both FAUN customer centres in Stuttgart and Mainz since the start of 2016. The 31 year old from Berlin already has a reputation in the industry as he worked for a large communal disposal company for twelve years. The trained management expert in the trade is therefore familiar with the challenges of being a reliable service partner from the customers perspective, and can draw from this experience in his current position. Karsten Schwanke is also on three DIN boards for the further development of vehicle technology under standardised conditions. Karsten Schwanke says of his job: "The customer centre in Stuttgart is one of the newest of a total of eleven service locations I will continue to expand and develop this location as a challenge. I have a great team by my side and am looking forward to the job. The optimisation of the customer centre, along with modernisation work at the traditional location in Mainz are on my agenda."

K>MOBIL wishes Karsten Schwanke and his team every success and customers who are always happy!

Author: Claudia Schaeue





Side loader technology in the fairytale Bavarian forest

ZAW Donau-Wald is located in a region which could be straight out of one of the fairytales of the Brothers Grimm, and where it could be assumed that a visitor might encounter Red Riding Hood at any given moment in a clearing in the woods. The business premises of ZAW are picturesquely situated here, and have also recently become home to 55 FAUN vehicles.

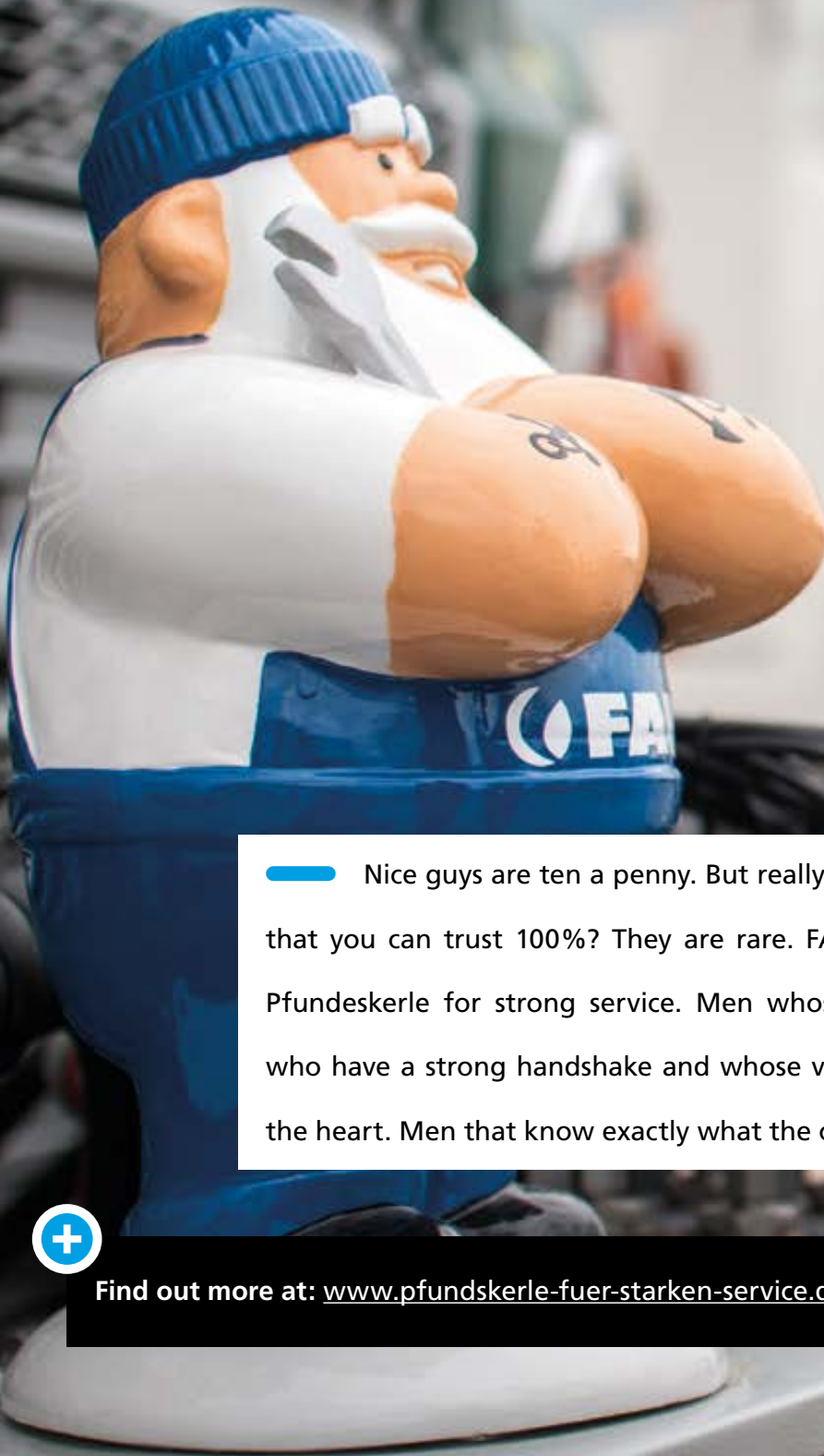
In 2015, the waste disposal association made the decision to deploy the new FAUN side loaders and ordered 13 SIDEPRESS C1100. In summer 2015, an additional tender of 31 side loaders and eleven rear loaders was released by ZAW Donau-Wald, which FAUN was able to win were awarded the tender in 2016. The vehicles which are maintained with a fullservice package which is currently provided by Osterholz-Scharmbeck and deployed in the area known as the "Dreiflüßeeck" (literally, the "three rivers corner"). From 1. July 2016, all vehicles will then go into service in ZAW's network.

Karl-Heinz Kellermann, Head of AWG said: "FAUN managed to come out on top in the tendering process with its side loader. A powerful product which offers optimum infrastructure also when it is in service. For this reason, we have also opted to use FAUN's Full Service package."

In order to provide ZAW and the vehicles with the best possible support and to keep the fleet running, FAUN is opening the eleventh service centre in Germany in Hengersberg. Florian Knödseder, Service Manager Hengersberg said: "Because we are in such close proximity to the customer we are able to guarantee maximum customer support for the 55 SIDEPRESS and VARIOPRESS bodies with the Full Service package". In future, three fully equipped FAUN response vehicles will be deployed in the region and if required, four service technicians can be quickly on site and provide support for the vehicles at all times. ZAW Donau-Wald knows what to expect and it can pass over any service-related issues to FAUN and concentrate fully on its disposal service. Don't worry, be happy.

Author: Claudia Schaeue

Pfundskerle service.



— Nice guys are ten a penny. But really great guys, the type that you can trust 100%? They are rare. FAUN has these great Pfundeskerle for strong service. Men whose word still counts, who have a strong handshake and whose vision is straight from the heart. Men that know exactly what the customer wants.



Find out more at: www.pfundskerle-fuer-starken-service.de

for strong

Who are these great guys who deliver great service? Our great guys are the FAUN team that looks after our customers. These Pfundeskerle for strong service really understand your business. From service technicians to spare partssales representatives to office colleagues, you can rely on our competent contacts, and trust that you'll always receive a reliable service of outstanding quality. Tailored to you, wherever you are.

Our service promise is simple. Though FAUN transformed into an international enterprise group long ago, we remain true to our roots in terms of service:

**Dont worry,
be happy!**

Great people – because we understand that only experience, And so that the vehicles run properly, FAUN has built its offer on service performance and offers different service packages at set rates for refuse collection vehicles, and recently has also started offering these for sweepers too.

Author: Claudia Schaeue



New partners on the Iberian Peninsula

FAUN is increasingly focusing on South Europe with its new partners, and has found the ideal contact person in the export team in the shape of João Martins.



Bringing a new lease of spirited sales energy to the Export team: João Martins.

F AUN has only had limited success in the last few years in South Europe due to the economic crisis as well. However, João Martins, who has been working for a year as Sales Manager in the FAUN Expotec GmbH team, has brought a breath of fresh air to relations with South Europe. Aside from in his native country and in the field of export, the native Portuguese has also had many years of experience in Spain. Therefore it was only logical to give him - as someone familiar with the Iberian disposal industry - the task of searching for new FAUN partners. He succeeded in choosing three strong partners - FAUS in Spain, SIMOPECAS in Portugal and HELMA in Greece - and winning them over for FAUN. Each of these new FAUN partners came with numerous customers and projects in hand to Munich, and are now on the fast lane in all three countries with the new demonstration vehicles.

Author: Tim Collet

Modern front loaders are making an impression in Ecuador

Quito. The new FRONTPRESS is also making a good impression abroad

Far away in Ecuador, the customer was so impressed by the performance and reliability of the machines that he ordered additional front loaders from the FAUN Partner AUTEC.



The concept of the head-on driving of large bins in one-man operation and then emptying them across the cab in the body without the driver leaving his work station originally comes from the USA. With the FRONTPRESS, FAUN has brought this idea to Europe. Since then, the third generation of the FRONTPRESS has become so established on the market that the front loader is now making a good impression in America too. FAUN has provided three FRONTPRESSES via its partners AUTEC to Quito, the capital of Ecuador. After a basic training session in operation and service on site, the men from AUTEC can maintain the front loaders on site without any problems. And if there does happen to be a question, the hotline in the FAUN factory in Osterholz-Scharmbeck is always available.

Author: Tim Collet



New trucks for North West England

St. Helens takes delivery of their new VARIOPRESS refuse collection vehicles.

In 2015 the decision was taken to renew the refuse collection vehicles on a rolling programme starting with four, after looking at the market and the options available they decided that the FAUN VARIOPRESS with a ZOELLER Delta lift would offer them the best operational performance and give them proven reduced whole life running costs.

The FAUN VARIOPRESS is our best-selling refuse collection body in Europe, together with the FAUN ACTIFIT system; it offers the best load distribution, protecting not only the gross vehicle weight from overloads but also individual axle weights too. It can also be utilised for a variety of different waste streams including household residual waste, trade waste and green collections. This flexibility allows operators the ability to maximise the productivity of the asset. Mounted on a Mercedes Econic chassis the VARIOPRESS is built at our state of the art production facility in Germany. The ZOELLER Delta lifter is again our most popular bin lifting device in Europe, as it maximises the hopper volume by providing a class leading rake position. This allows lower fuel usage and consequently reduces CO₂ emissions.

The first four VARIOPRESS's were delivered to St. Helens in March 2016 and are already operational out on the streets of St. Helens. The staff have already commented on the improved speed of the lifter and accuracy of the FAUN ACTIFIT weighing system. 'So far we are really impressed with the vehicles' said Steve Marsh, Transport Manager for St. Helens Council, 'Ben Lord and the team at FAUN ZOELLER UK have understood exactly what we wanted and have delivered exceptional vehicles on time and the operational staff are also impressed, it's also reassuring to know that the field service team are on our proverbial doorstep.' Ben Lord, Regional Account Manager commented 'For me the whole experience from procurement, through to delivery and training has been a great one – hopefully these are not the last vehicles that we will deliver to St. Helens and I am looking forward to working closely with them in the coming years, this further cements our presence in the North West and Merseyside in particular'.

Author: Simon Hyde

World Tour 2016



— The FAUN TRACKWAY team have begun their world tour which includes visiting over 14 different countries throughout 2016 exhibiting their products and services to an even wider audience.

FAUN TRACKWAY have recently returned from the Marine West exhibition in Camp Pendleton, California and the Singapore Air Show, where they have been showcasing a number of new products.

Whilst at Marine West from 3rd - 4th February the TRACKWAY team, alongside CEO, Chris Kendall, launched the MLC 70 container. The MLC (Military Load Classification) 70 Container is a specifically designed ISO container which can be transported by land, sea and air, enabling expeditionary personnel to deploy and recover up to 90m of MLC 70 TRACKWAY using a Rough Terrain Container (RTCH) vehicle.



Whilst exhibiting at the Singapore Air Show from 16th to 19th February, the FAUN TRACKWAY team were delighted to announce the successful delivery of a recent contract to the Singapore Armed forces. In addition to this, visitors were able to learn more about FAUN TRACKWAY's suite of aerial landing solutions and how they can be used to aid military operations with the team showcasing the containerised helipad. The prototype packing solution is based on a 10ft ISO container however, is also available in 20 foot and 40 foot variants for larger helipads. The container can be used as an operational base when the helipad is deployed and is fitted with power, air conditioning, secure working and storage space. In addition to this, the container includes two sleeping spaces and can be used off shore.

The FAUN TRACKWAY team have also attended DSA in Malaysia from 18th - 21st April and AUVSI in New Orleans, USA on the 2nd - 5th May and will be keeping busy over the coming months visiting Modern Day Marine in Quantico, Virginia, USA from 22nd - 24th September and AUSA in Washington DC, USA from the 3rd - 5th October.

A full list of our world tour and other information can be seen on our website:
www.faustrackway.co.uk

Author: Danielle Thomas

Verified safety

— With a targeted work protection management system, FAUN Environnement reduced working accidents and raised consciousness of early recognition of and avoidance of accidents. The program was certified in accordance with OHSAS 18001.

Along with product innovation, the environmental efficiency of the waste collection vehicles and the work process, employee well-being is a central part of the company philosophy of our factories. FAUN Environnement developed a holistic occupational safety scheme for employees which has since been certified and enjoys a high level of significance in the company.

The main objective was to reduce the number of work-related accidents, and where possible to completely eliminate them. For this purpose, a continuous improvement process to increase health and safety in the work place was introduced in 2014. These efforts were worthwhile, as today the occupational safety management system in our French factory is certified in accordance with OHSAS 18001.

All 300 employees of FAUN Environnement were included in the scheme. The primary objective was to engage and strengthen the feeling of responsibility in each individual for the safety and well-being of themselves and colleagues. "The employees should not see instructions as constraints, but rather understand the reasons for their implementation and internalise these. The next step is to actively participate in their development and for employees to educate themselves in order to anticipate, to diagnose and to avoid potentially risky situations. In this way, employees can more effectively avoid these measures and develop the correct approach." explains Etienne Blaise, President of FAUN Environnement.



Five point plan:

1. First two month phase in which all management staff were familiarised with and had their awareness raised regarding all the established standards of "Politics for Health and Safety in the work place (SST)", and trained regarding these.
2. Five month phase in which all prescribed documents were updated, (e.g. labour code, social code, insurance code etc.)
3. In the third three month phase, the potential dangers were identified and risks are estimated, e.g. noise protection, measuring of the occupational materials potentially harmful to health, as well as the ventilation and extraction system of the factory.
4. The subsequent three month phase consisted of monitoring the approximately 300 existing work places and a training session adapted to the work place, e.g. training regarding the risks when working at heights, dangers of explosion, prevention of musculoskeletal disorders, etc.
5. The scheme was finalised in the fifth phase by the development of an occupational safety management system, the implementation of the various processes, as well as an action plan with 140 measures to be carried out.

FAUN Environnement received certification in accordance with OHSAS 18001 after an external audit by Lloyd's. Every six months a voluntary control-audit is carried out by Lloyd's with the desire to continuously improve employee working conditions and well-being at work.

"We are very proud of this certification. With it, the engagement of our employees as well as our investments to optimise our risk management system have been rewarded", says Florent Combier, Engineer for Quality, Safety and Environmental Protection at FAUN Environnement. "We will use this accolade to also prepare our environmental and energy management system for certification in accordance with ISO 14001 and 50001 at the end of 2016."

Author: Etienne Blaise

The theatre of the world

— Tis the season! 60 winter sports enthusiasts
competed for the ski challenge cup



The winners of this year's ski challenge cup Dr Johannes F. Kirchhoff, Michaela Kurk and Steven Ender.

This year saw the 17th ski weekend of KIRCHHOFF Ecotec, held in March. 60 colleagues from the companies FAUN and ZOELLER came together for three days in Gasteiner Tal, in order to put their ski and snowboarding prowess to the test. In addition to communal ski excursions, the 7 ski olympiads were the key features of the weekend.

Together with patience, dexterity and expertise, the teams from Mainz, Zurich, Grimma, Bischofshofen or Osterholz-Scharmbeck and Berlin had to demonstrate their top performances to win the coveted trophy. Bounding ahead with the most points was the team led by the ski weekend founding father, Dr Johannes F. Kirchhoff. His team, including fellow combatants Michaela Kurk and Steven Ender, held the coveted challenge cup aloft, having shown nerves of steel against their opponents.

"This weekend is all about the sport, and the friendly coming together of different people outside our daily working routine." We all have one goal in mind and strive for excellence. It is great to see, and makes me proud that we grow together and spend time together - even where our approaches are very different. This makes us stronger, and better prepares us to tackle the daily challenges at work," explains Dr Johannes F. Kirchhoff, the motivating force behind the ski weekend.

Author: Claudia Schaeue

IFAT 2016— Convincing innovations from ZOELLER

Author: Dipl.-Wirtsch.-Ing. Sven Walter



The ZOELLER group is thus a clear international product leader, and being an innovative company, can make contributions to the optimization of customer requirements and ensure continuous availability throughout hard daily use.

 Future-oriented view with clear product structure

MEDIUM X4



In the product segment of rear loading refuse-collection vehicles the **MEDIUM X4** was the highlight of the trade fair stand, and thus on the main show stage. The improved appearance of the smooth-walled body offers a perfect design along with technical and practical values. The redesign of the front frame on the body increases the usable body volume by 1 m³. Another increase in volume of 1 m³ was achieved by adapting the angle at the rear of the body and by the roof-mounted cylinders for opening and closing of the tailgate.

This results in an additional 2 m³ body volume with the chassis with an identical wheelbase and a weight reduction of more than 260 kg. In addition, the short overhang of the tailgate has a positive effect on the manoeuvrability of the vehicle. In combination with the **ZOELLER DELTA 2316 PREMIUM** described below there is a shift of the centre of gravity towards the cab. This has the decisive advantage that ballasting of the front axle or the body's front-end wall can be dispensed with. This fact clearly increases the payload of the entire system.

With the complete integration of the lifter system in the tailgate of the refuse collection vehicle, a further development step for the **ZOELLER DELTA 2316 PREMIUM** was reached. For the first time, the operating elements and units of the lifter system and the refuse-collection vehicle are visually and ergonomically positioned in a single console. A lighting concept adjusted to the lifter system in the connecting area of the tailgate to the lifter summarizes the components required in traffic. The LED flashing beacons, work lights, license plate light and rear lights are perfectly positioned and are well protected in a lighting bracket. The tough and robust design is made for daily use and is composed of high quality durable materials. The result is a significant weight reduction for the integrated ZOELLER DELTA 2316 PREMIUM.

These two components together achieve a significant weight reduction of 500 kg for the entire system which leads to a large payload advantage for the refuse collection vehicle. Thus, nearly 12 tons of payload are achieved. »



ZOELLER MEDIUM X4
DELTA 2316 PREMIUM



SLF

ZOELLER Side-loaded vehicle SLF / SLF XL

The development of the ZOELLER side-loader division provides for the essential needs of the market perfectly matched systems in terms of body, compaction principle and lifter system. The three basic types are defined by the body design and the ZOELLER side-loaded lifter with the following designations: **ZOELLER SLF**, **ZOELLER SLF XL FLEX** and **ZOELLER SLF XL HEAVY**.

The **ZOELLER SLF** in its traditional version used successfully for many years is equipped with a side-loaded lifter with grabber design. The proven principle of the paddle compactor pushes the material from the hopper into the body.

The **ZOELLER SLF XL** is an enhancement of the **ZOELLER SLF** and combines in its version extensive development experience from many years' disposal technology. An essential component of the system, the compaction unit is designed as a pendulum press. Easily accessible hydraulic cylinders arranged outside the compactor drive the plunger piston via a shaft. A torsion-resistant intermediate frame with two tilt cylinders enables emptying. The tailgate lock is based on the same principle as for the classic rear loader.

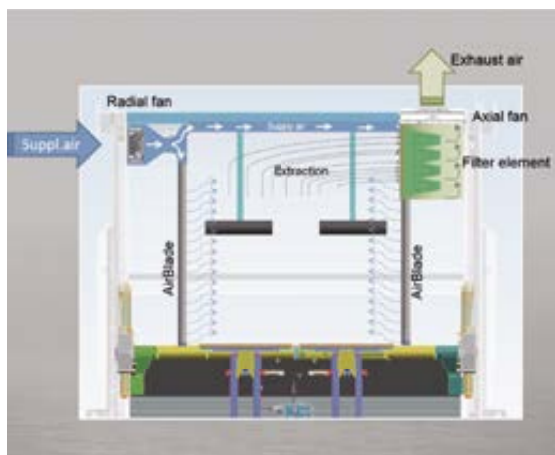
The designation **ZOELLER SLF XL FLEX** is defined by the selectable version of the lifter system. As standard version, the lifter is designed with a lifting comb which allows to empty all standard 2-wheeled and 4-wheeled containers according to DIN EN 840-1, 2 and 3. Alternatively, this system can also be equipped with a GRABBER analogous to the **ZOELLER SLF** which allows pickup of 2-wheeled containers.

The designation **ZOELLER SLF XL HEAVY** describes the system with a special lifter version as fork pickup device with a lifting capacity of 1,200 kg to pick up large containers with the label SUB 2.3 m³ and 3.2 m³.



CLEAN OPTION – a crowd puller at the IFAT show

CLEAN OPTION specifically describes a feature for a refuse collection vehicle of the rear-loader type. The effects of the operational personnel through dust, odours and moulds is increasingly becoming the focus of interest. Damage to health and costs resulting from occupational diseases are always under discussion in the refuse collection business. But ZOELLER now has the answer: CLEAN OPTION, a system consisting of a filter element for coarse and fine dust as well as an activated carbon element removes odours efficiently. An upstream extraction by means of a radial fan generates a vacuum in the tailgate of the refuse-collection vehicle. The aim is to extract air from the outside and thus to conduct the contaminated air via the filter positioned on the vehicle roof into the environment as purified fraction. An air curtain supports this operation by AirBlades integrated in the RH and LH side tailgate. Thus, the environment is sealed off to the back and the contaminated air swirling air is blown into the tailgate. Therefore the contaminated air swirling from the tailgate back into the outer area is significantly reduced.



Additional electro-hydraulic supply (EHV)

With the additional electro-hydraulic power supply, ZOELLER has developed a component for refuse for the ZOELLER collection vehicles product range that enables control of the functions of the ZOELLER lifter system by using an additional module. This means that emptying of refuse containers without speed increase on the chassis is possible, and significantly reduces noise emission during the emptying process.



Emptying of the hopper and compacting in the body is carried out during the driving process to the next stop, which is described by the term "Pack on the Move". Similarly, the functions 'move ejection plate' as well as 'raise/lower tailgate' can be carried out with the additional electro-hydraulic power supply. The pressure supply of the additional electro-hydraulic supply takes place via electrical hydraulic pumps in hydraulic accumulators. These have pressure monitoring via adjustable pressure sensors with automatic activation via differential pressure measurement. The vehicle's battery provides power for the hydraulic pumps. A separate microcontroller with CAN connection to the body controller carries out the communication between EHV and the body controller. Automatic switching to standard mode is of course possible at any time during the operation.



A question of service

Service is taking on an ever-increasing level of importance and is a key differentiating factor in the supplier selection process. For this reason, over the last few years, the ZOELLER team has established a strategically planned, full-coverage service network in Germany. The latest addition to this network is the service support point in Brahmenau (Thuringia), based close to the customer to significantly increase response speeds and flexibility. The full ZOELLER service network now includes 11 locations and more than 100 skilled and experienced employees trained to provide rapid and effective assistance to customers, whether in the workshop or via our mobile service at their location. ZOELLER's tailored service contracts are so much more than just maintaining and servicing refuse disposal vehicles or lifters. For our team, it is important to be able to offer tailored service solutions for waste disposal companies.

— A sophisticated service portfolio is one of the key factors in a purchasing decision

Jürgen Kowalke (Sales and Service Manager for Germany) works together with Stefan Senftleben (Customer Service Manager) to offer tailored customised and full-service solutions. With these options at its core, ZOELLER has developed a programme that offers high vehicle availability and guarantees that customer refuse collection vehicles and lifter systems are ready to be deployed whenever they are needed. The resources freed up by this programme can be ploughed back into other refuse collection activities — with the customer remaining in firm control of the costs! At ZOELLER, the definition of 'service' encompasses partnership and close collaboration. Remondis is keen to engage in detailed operational dialogue with its partners — a strategy that makes it a perfectly matched partner for ZOELLER. It was for this reason that this year's REMONDIS workshop and management meeting was held at ZOELLER's main plant in Mainz. Together with other suppliers such as FAUN, DAIMLER, MAN, MEILLER and c-trace, the team presented the latest news and trends from the sector. The meeting was the ideal platform for exchanging information and engaging in discussion. "We wanted to use this dialogue to create added value for participants, which would make their day-to-day work easier and also drive even greater business success", explains initiator Sven Walter (Sales and Marketing Manager).

Author: Dipl.-Wirtsch.-Ing. Sven Walter



From left: Josef Holtermann (REMONDIS), Sven Walter (ZOELLER), Tobias Dornhege (REMONDIS), Philipp Scheuren (REMONDIS), Christian Vollmer (REMONDIS), Stefan Senftleben (ZOELLER), Jürgen Kowalke (ZOELLER), Albert Schlieker-Steens



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Road to Scandinavia



KIRCHHOFF ECOTEC has started the close cooperation with ZOELLER and JOAB



To ensure the technical requirements of our customers in Denmark, Norway, Sweden and Finland and to ensure that the product development will comply with all European directives and standards, two technical engineers from JOAB in Sweden have joined the ECOTEC engineering team – TEC Centers. The first result of these cooperation is the brand new and common curved collecting body type “V20”.

Actually ZOELLER TECH produce the JOAB rear-end-loaders type HD and MDH with the new V20 bodies. At the same time the TEC Centers engineers are implementing the new V20 design also into the JOAB two chambers body types TWIN and TWIN-H. The first demo unit is expected to be released in June 2016. RCV's like the multi-chamber-body type TWIN is becoming increasingly popular. Customer all over Europe appreciate the technical solutions and the modern design of this equipment. The result in sales in 2015 and the order book in 2016 confirm that it was the right decision to join the potential of brands and to cooperate on the competitive markets in the Scandinavian countries.

The aim of the ECOTEC – JOAB project is to learn from each other and to strengthen the position of all group companies.

Author: Krzysztof Sosnowy

JOAB HD (V20)

Road to Scandinavia



JOAB which is a very well-known brand in all Scandinavian markets was established in 1963 by Jan Olsson. He started the business with workshop for vehicle repairs, but the Company was growing so fast, that he had to move the business in 1965 into a bigger plant to the city of Östergärde. In 1967 JOAB released the first skip loader called "JOAB Lift", which builds the basis for a lot of new developments in the following years. Then, in 1987, JOAB manufactured the first hook lift type "J18". In 1992 followed the introduction of the very smart body-work-changing-device "Cameleont", designed for rapid and easy body swaps. In 2005 the new company – JOAB Recycling AB was established. Very quick the production of the first RCV under JOAB brand had been started. During the next several years JOAB implemented different new products in the range of rear loaders, side loaders and multi chamber vehicles.



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01 Assembling of a complete-build-body (CBB) unit produced and delivered by ZOELLER TECH to JOAB in Blomstermåla | Sweden

02 JOAB HD (V20) for BYŚ in Warszawa Poland

03 JOAB-Team



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ZOELLER

moves the Spanish market

Strong presence in Spain – with new addition
of ZOELLER brand to the product range

The new subsidiary company ZOELLER EQUIPOS URBANOS, whose head offices are in Barcelona, will raise the market awareness and develop the brand presence in Spain. Supported by the leading French brand SEMAT, Johnny Rosell and Philippe Carpentier will have overall responsibility for the strategic plan and development of this area. ZOELLER EQUIPOS URBANOS will also offer an intelligent service tool with an extensive after sales service alongside the existing SEMAT product portfolio. A brief overview:

- Tailor made refuse collection and truck mounted street cleansing units
- Technical help and after sales service and repair
- Spare parts
- Leasing options

The strength of the enterprise clearly demonstrates how keen we are to raise brand awareness in Spain. From the development, product design and the production as well as the customer service through the whole life cycle of the vehicle. Most importantly we can now offer a locally based company with an extensive service operation on Spain. With the support of the experienced and successful holding company SEMAT, ZOELLER EQUIPOS URBANOS will have an extensive support system and technical knowledge that can be accessed at any time for energy-efficient, tailor made solutions:

- Hybrid collective vehicles (plug-in modules)
- Electric vehicles
- CNG or biology CNG vehicles





Regarding the CNG vehicles, SEMAT have a long history and expert knowledge in this field. In France alone SEMAT has delivered (between 2014 and 2015) circa 150 refuse trucks with rear end loaders. ZOELLER EQUIPOS URBANOS will be at exhibition TECMA in Madrid from the 15th - 17th of June 2016 and will present their innovative product program to the audience including:

- A dedicated Side-loader “ROBOPAC” for the Spanish market (including the patented bin-lifting system)
- Rear end loaders “MICROPAC”, “CARGOPAC” and “MEGAPAC” with live demonstrations of the bin-lifters
- Truck cleansing mounted range “ASVAC” and “AMARINE

The aim of this restructuring is to enhance, develop and raise our brand presence in Spain and also to ensure that the existing customers get the service and back up they require.

Author: Philippe Carpentier

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