Dear readers,

In 2014, we are—as ever—intent on growth: with new branches opening up in Great Britain, Indonesia and the United Arab Emirates, we have recently been able to expand our global network to 23 international locations.

By starting production at our new plant in China in the 2nd quarter of this year, we will set another milestone in the history of HELUKABEL®.

In Taicang, near Shanghai, we established a new production site covering 7,000 m². In the future, we will produce cables and wires for the Asian market here. Similar to our German plants, we will also focus on producing quality flexible and highly flexible cables and wires in Asia, while adhering to German, Chinese and international norms. Flexible production units enable deliveries on short notice.

In combination with the HELUKABEL® logistics centre, which has been erected in close proximity, we will be able to fulfill large-scale projects for the Asian market with ease.

The international market, too, remains a source of inspiration, ideas and innovations for a highly diverse range of industries. This results in an array of tasks and development opportunities, such as the single cable technology, which is currently being introduced to the market.

We would love to become your partner and realise your upcoming projects. But for now, I hope you will enjoy reading our new issue of HELUnews.

Kind regards,

Helmut Luksch
Managing Director

“Because there are no second chances in an emergency, everything has to be right from the start.” Fully behind this slogan, HELUKABEL® was commissioned by Iveco Magirus Brandschutztechnik GmbH to develop a cable for turntable ladder vehicles, such as fire engines. Extreme bending cycle movements and loads, including a constant tensile load to prevent the swinging of the ladder, presented the development engineers with a challenge.

Alongside these various mechanical loads, thermal influences also had to be taken into consideration. When using the vehicles on site, the functional integrity of the cables must be ensured so that the emergency vehicles equipped with them can reliably perform their services. Otherwise, outages could have fatal consequences.

In close collaboration with Iveco Magirus, the cable was designed, constructed and continuously improved until it fulfilled all the requirements.

The cable was created with power and signal leads. Combining both power and signal into one cable while also observing the specified bending radius and cycles represented a major challenge. Another central element was a steel-wire core, which served as a strain relief.

In this regard, Iveco had specified a special test setup in which the cable was tested according to defined parameters such as speed, bending radius and train weight. Parallel tests took place as early as the development phase so that any weaknesses could be identified and rectified immediately. To do this, the employees in production at Windsbach set up a comparable test apparatus. The aim was to give the customer a cable for sampling that corresponded to the quality of the production series.

The joint development and comprehensive test programme paid off. After a development time of several months and numerous test cycles, we were able to present the client with a product that fully complies with all necessary parameters and, in some cases, even exceeds them.

HELUKABEL® was once again the right point of contact for specialised lines with extreme loads and extraordinary requirements.

More on the topic of quality assurance and the test facilities at HELUKABEL® can be found on p. 3 under “Cables stressed to the max at in-house test facility.”

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Green electricity with no fluctuations thanks to the biggest commercial battery park

“Smooth sailing for the wind and sun” is a phrase heard around Wemag, a green power provider based in the German city of Schwerin, and at Younicos, an energy specialist based in Berlin. These two companies joined together to open Europe’s first commercial battery park to compensate for short-term fluctuations in the wind powered region where Wemag operates. The 5-megawatt battery park with a 5 megawatt-hours capacity will begin compensating for fluctuations lasting just milliseconds caused by wind gusts and clouds as well as by short-term changes in energy consumption this September. Until now, this task was primarily the responsibility of energy carriers that rely on thermal power plants running on fossil fuels. The catch: these power plants only use up to 10% of their capacity to make short-term upward and downward “adjustments”. The rest is fed into the power grid, even if wind and solar sources are already providing enough power. Batteries, on the other hand, are not “must-run” power sources and are also faster and more precise than coal-fired power plants. This means that every megawatt of installed batteries replaces 10 megawatts of conventional power that is otherwise needed to stabilise the power supply. Software from Berlin start-up company Younicos, ensures that the batteries are always either fully charged or able to accept more power. The software also optimises the battery life so well that South Korea’s Samsung Corporation placed a 20-year performance guarantee on the lithium ion batteries it manufactures for use in the battery park. HELUKABEL® supplied the medium voltage, grounding and data cables used to connect the battery park to the power grid. These cables guarantee that the green electricity can be supplied without any complications and that the battery park is fully integrated with the power distribution network and connected to the 380-kV high voltage grid. Image: Source Wemag

New encoder systems with digital interfaces, such as Sick’s Hiperface DSL, are taking the world of drive technology by storm. Until now, servo motors and encoders have been connected with two wires – one each for transferring power and transmitting position information. In the future, these new encoder systems will enable single cable solutions, making the second cable obsolete. HELUKABEL® is now presenting its new single cable technology for such uses. In addition to the space- and weight-saving advantages of the single cable technology, the reduced connection technology is what makes this solution such a success. HELUKABEL® is expanding its standard servo cable programme with the new “TOPSERV HYBRID” cable family. The new “hybrid” cable products are available in “PUR” for highly dynamic drag chain cable applications and “PVC” for limited movement drag chain cable applications.

“Advantage through testing is the motto for this new area of application,” says Thomas Pikkemaat, product manager for drive technology and commercial director of the HELUKABEL® GmbH plant in Windsbach. “As the pair for the data transmission is integrated into the servo cable, the durability of the data shield is especially important. Tests on the new cables are only partly conclusive, as the quality of the shield drops with the use of a drag chain,” the product manager says. That is why, in 2012, HELUKABEL® began subjecting its hybrid cables to a highly-dynamic drag chain cable test with over 5 million cycles at our own test centre located in Windsbach. The tests were passed with flying colours. “While we did watch for corkscrew formation and classic wire break, our main focus was on the quality and durability of the copper shield that protects the data pair from any interference from the power cables,” explains Pikkemaat. Ever since, the hybrid cables have been used successfully and error-free in the field. In addition to the positive test results, practical application data further confirms the durability and performance of single cables for servo motors.
In 2011, German lawmakers introduced a tax simplification law which changed the requirements relating to electronic invoicing by allowing invoices to be sent via email without a digital signature. We are pleased to announce that we will be switching to paperless invoices beginning 1. April 2014. We would like you to assist us in the changeover to this new invoicing system, which will save resources by being it more environmentally friendly.

We therefore ask for your active support by filling out the declaration of consent at www.helukabel.de/pdf-rechnung and email it to invoice@helukabel.de.

In the future, you will receive a separate email for each invoice, with a PDF invoice attached. Please do not hesitate to contact us if you have any queries.

Invoices switch to PDF format

Highly resistant fencing cables

HELUKABEL® not only caters to industrial projects, but also to the sports sector. Fencing is a sport that dates back to antiquity and was originally developed from a combat technique. There are three weapon categories in fencing: the thrusting weapons – foil and épée – and the cutting and thrusting weapon – sabre. To count the hits, a special electronic kit is used. Fencers competing in foil and épée wear an e-mask and a so-called e-jacket.

Fencers competing in sabre fights also wear an e-glove. The weapon’s blade is fitted with a groove, which holds one or two isolated braid wires. Depending on the type of weapon, its tip is fitted with a sensor that either opens or closes the electric circuits. The weapon is connected to two wires and the As long as the electric circuit is closed, no hit signal is displayed. Any hit, however, opens the electric circuit immediately.

Often, the cables worn by fencers are too weak to withstand the immense strain of the sport. To ensure the equipment is functioning reliably, HELUKABEL® developed a highly durable cable based on our drag chain cable knowhow. Now, three different poly cables – all tested at our testing facility in Windsbach – meet the requirements of fencing. (For more information, see “Cables stressed to the max at in-house test facility”.)

All wires have been reinforced with strands of Kevlar, which are able to withstand the immense strain and prevent the cables from tearing. Depending on the type of fencing, the cables are available as 1-, 2- and 3-pole wires. A cotton casing prevents the cable from heating up in the guide rail. This optimised wiring for fencers has been developed by our custom cable department in collaboration with the Hungarian Fencing Association. Since the launch of these cables, HELUKABEL® has already conquered the Hungarian fencing market.

Cables stressed to the max at in-house test facility

In the past, many mechanical engineering companies have paid the price for failing to test electrical cables to meet demanding applications. Machines are becoming smaller, the areas for transportation even lower, and their speeds faster. As a result of the tighter structure, the bending radii of the cables must also be narrower. There is also steadily increasing demands within the machines, all of which lead to greater mechanical stress on the cables. However, not enough attention is paid to the function of cables as C-parts in high-end machines.

The cables installed in cable carriers are exposed to particularly high stress factors. The continuous bending and stretching when the cable carrier is moving means that they must fulfill stringent mechanical requirements.

“The stress on the cables in a cable carrier will depend on the movement, bending radius, velocity and acceleration. We always ask our customers to provide us with details of these four technical specifications,” says Thomas Pikkemaat, product manager for powertrain technology, and operations manager of the Windsbach factory. The warranty applies to the number of cycles, because it makes a difference if a system is operating as part of an uninterrupted 3-shift pattern or if it has regular downtime during single-shift operations. If a cable becomes detached from the cable carrier, there are three potential reasons for the fault: cable breakage, abrasion or cork screw effect. In order to prevent this type of damage during use, HELUKABEL® operates seven cable carrier systems and two torsion test benches in its production facilities.

“HELUKABEL® has already conquered the Hungarian fencing market.”

With the expansion of our high-bay warehouse, the automated small-parts warehouse (ASPW) also entered into service, offering a total of 35,400 container spaces. Here, up to a maximum of 1,000 containers can be accessed per hour. The new ASPW accommodates, among other things, a wide range of cable accessories, which thanks to the added warehouse capacity, made inventory expansion possible. Electronic order processing via the warehouse distribution system (WDS), the fully automated storage and retrieval systems, and conveyor technology enable cable accessories to be accessed in the shortest times for the respective orders. What’s more, the selection options and size of the packaged units have also been improved. Just get in touch with the cable accessories department. Our staff will be happy to draw up a suitable quotation for you.

Telephone +49 (0)7150-9209-760 or e-mail susanne.moeller@helukabel.de

Faster, more flexible access to cable accessories
The regional championships in forklift driving were held in Nuremberg last year. Our employee, Jörg Klößinger, once again took first place in the competition. This is now the third time that he has won the StaplerCup, finishing well ahead of his 139 fellow competitors.

We are especially proud of the fact that two HELUKABEL® employees made it through to the finals this year. Martin Wiede put in a similarly strong performance to his colleague Klößinger, and managed to secure third place.

The winner of the competition, which is designed to test competitors’ skills, receives €500 in prize money. The top three then went on to compete in the StaplerCup final in Aschaffenburg, the venue for the German championships. From 19 to 21 September 2013, Klößinger and Wiede took on the 60 best forklift drivers from 26 regional qualifying competitions. Jörg Klößinger finished as runner-up. Congratulations to both drivers for their success, and best of luck for 2014!

On Saturday, 12 October 2013, we opened our new logistics centre expansion in Hemmingen with our employees and their families. A highlight of the afternoon was the communal release of balloons. At 2 p.m., employees’ children sent a total of 500 helium-filled balloons up into the air, accompanied by the Hemmingen band.

Each child was allowed to write their name on a postcard beforehand, which was then attached to their balloon. A great prize awaited the child whose balloon flew the furthest: four tickets to the Tripsdrill theme park – provided that postcard was sent back to HELUKABEL®.

When the postcards came back, the distance covered by these red messengers flew from Besigheim via Kirchheim to Neckarsulm. The winning balloon managed to cover an amazing 161 km (approx. 100 miles) to reach Groß-Rohrheim, near Mannheim. We would like to send our sincere congratulations to Gabriela Grunert for winning the grand prize. We hope that she and her family have fun at Tripsdrill theme park, where they are sure to have a great day.

To get more information about the fairs simply got to: www.helukabel.de/fairs

Contacting HELUKABEL®
Fax reply to +49 7150 9209-5501

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» 05.05.-08.05.2014 WINDPOWER 2014 Las Vegas, NV, USA
» 14.05.-15.05.2014 Wire Processing Technology Expo Milwaukee, WI, USA
» 20.05.-22.05.2014 SPS IPC DRIVES ITALIA 2014 Parma, Italy
» 09.07.-12.07.2014 INNOPROM Ekaterinburg, Russia
» 08.09.-13.09.2014 IMTS Chicago, Il, USA
» 15.09.-19.09.2014 Electra Mining Johannesburg, South Africa
» 17.09.-19.09.2014 Energgetab 2014 Bielsko-Biała, Poland
» 30.09.-03.10.2014 IDES Siberia Novosibirsk, Russia
» 07.10.-09.10.2014 Scanautomatic / Processautomatic Göteborg, Sweden
» 30.10.-01.11.2014 Electric Power and Renewable Energy Rangoon, Myanmar
» 04.11.-08.11.2014 China International Industry Fair Shanghai, China
» 19.11.-20.11.2014 Automation Technology Expo Montreal, QC, Canada