SIKORAEXTRA

Your magazine for Wire & Cable | Optical Fiber



Dear readers,

In 2019, SIKORA has started its 46th business year – striving again to stand by your side as a reliable partner and to further optimize your tasks and production processes with future-oriented technical solutions. In addition to the development of new technologies, the further development of existing products is of utmost importance at SIKORA. Due to the increasing performance of our systems, you can take full advantage of their production-oriented potential and thus, reach maximum productivity for your applications. For example, the display of the measuring values generated by the X-ray measuring system X-RAY 6000 PRO is specifically tailored to the requirements of the cable industry. Find out more in the article on page 4.

In the previous EXTRA issues, we informed you about the progress of our new building for production and logistics. We are pleased to announce the successful completion after a construction phase of only one and a half years. The building offers room for an efficient production, allowing to react flexible and fast to customer wishes.

Continuous further development and process optimization pay off. This shows the successful recertification of SIKORA for another three years according to ISO 9001 on page 8.

You will find these and other topics in the current EXTRA issue.

Enjoy reading!

Sincerely,



Dr. Christian Frank CEO SIKORA AG

Harly Prunk
Executive Board SIKORA AG



CONTENT Special topics: Fully utilize the metrological potential 04 Automotive cables: Saving weight and increasing performance 06 Completion of SIKORA's new building 07 Successful recertification **DIN EN ISO 9001** 80 SIKORA device trainings: 09 Fit for the future Raffle 11

PERFORMANCE SHOWS IN MANY SEGMENTS!

UTILIZING MEASURING TECHNIQUE TO ITS FULL POTENTIAL

Combining measuring device and processor system – maximum performance guaranteed



X-RAY 6000 PRO with ECOCONTROL 6000 processor system

With the X-ray measuring system X-RAY 6000 PRO, quality control of cables can be done quickly and precisely, directly in the extrusion line. Within milliseconds, an X-ray image of the cable is generated showing all measuring values, such as diameter, ovality, wall thickness and eccentricity. The measuring values are visualized on the monitor of the processor system ECOCONTROL 6000. SIKORA continuously optimizes the performance of the measurement solutions, enabling the operator using its full potential for process optimization.

Since the early 1990s, SIKORA has been offering X-ray technology in combination with

processor systems for quality control of cables. While processor systems of the first generation were limited to visualizing four measuring values, their mean value as well as the smallest wall thickness, today, the operator receives a far more complex display due to a higher processor performance.

The X-RAY 6000 PRO for the measurement of multi-layer products is combined with the display

and control system ECOCONTROL 6000, a powerful processor system with a vertically mounted 22"-TFT-monitor, which shows the measuring values numerically as well as graphically as trend and statistical data.

The wall thickness is displayed at eight measuring values as standard. Additionally, an intelligent physical evaluation model determines the minimum wall thickness, meaning the available value that optimally supports the operator to control the process. Moreover, the physical model enables the visualization of the wall thickness at

any position over the total circumference of the cable.



Basic visualization at the ECOCONTROL 6000 with eight measuring values

X-ray technology for single layer products

The X-RAY 6000 is available as an alternative to the X-RAY 6000 PRO. The measuring system focuses on single layer products, the product data is displayed on an integrated 7" monitor at four measuring points. In combination with the ECOCONTROL 6000, 1000 or 600 processor system, a line control regarding line speed or extruder rpm can also be realized.



X-RAY 6070 PRO at the cold end of an extrusion

For example, as an alternative to the standard display of eight measuring values, a visualization of twelve or more measuring values is possible. The operator selects the number and positions of all displayed measuring values.

The true potential of the investment results from the reliable measurement, which, combined with the automatic control of the line speed or extruder rpm, guarantees the compliance with given specifications as well as the highest performance for a maximum of process optimization, productivity and cost efficiency.



CLASS, NOT MASS WITH THE CENTERVIEW 8000

Reduced weight and increased performance in automobile production

Compared to the 1980s, modern vehicles have become rolling computers that can be quite heavy due to their various comfort and safety systems. This can be a blessing and a curse at the same time, as the additional weight often overrides the savings in fuel of the advanced engines or even leads to a higher consumption. Therefore, it is no surprise that automobile manufacturers always aim at avoiding unnecessary weight. The CENTERVIEW 8000 is the perfect device to ensure the highest quality with minimum material consumption even for smallest wires and cables.

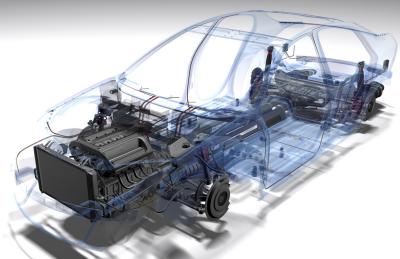
With more than 100 consumers (e.g. battery sensors, ESP, radar-, ultrasound and video sensors, but also air-conditioning, electric windows and other amenities), up to 40 kg (88.2 lbs) accumulate for the electrical system of a mid-range car alone. This weight equals some 8,000 m (8,749 yd) cables, which are built into a mid-range car today. In comparison, in 1980, only about 200 m (219 yd) cables were necessary to power an equivalent model. The constantly growing number of electronic components is a continuous challenge for automotive manufacturers, as increased weight means a reduced performance and more cables lead to a higher number of possible error sources.



For not having to compromise on comfort or, in the worst case, safety, as well as to avoid complex repairs for the replacement of individual cable

looms, today, modern materials are being utilized for lighter and more resilient cable looms. However, not only the choice of material offers savings potential. Other important factors are the sustainable use of these materials as well as the highest quality control already during cable production.

The CENTERVIEW 8000 is a non-contact gauge head that provides continuous online 8-point eccentricity, 4-axes diameter and 8-point ovality measurements with the highest measuring accuracy. The individual measuring values are



displayed numerically and graphically and are the basis for a stable production process and an extensive quality management.

By controlling line speed, the CENTERVIEW 8000 ensures the specific wall thickness. In total, the system guarantees an optimization of the production whilst reducing costs and weight at the same time. The CENTERVIEW 8000 impressively ensures the quality of the cable that has to endure a temperature of far above 200 °C (392 °F) as well as a continuous performance of approx. 1,500 Watt – at peak even reaching up to 3,000 Watt.

The CENTERVIEW 8000 contributes to quality assurance for an optimized production process while reducing costs and weight at the same time.

VW, "Die Automeile Wolfsburg", accessed 6 December 2019 https://blog.autohaus-wolfsburg.de/blick-unter-die-vw-golf-7-karosserie/

Hans-Christian Dirscherl, "PCWelt", accessed 6 December 2019 https://www.pcwelt.de/news/Spannende_Fakten_zur_Elektrik im Auto-Bordnetz und Verbraucher-8253986.html>





Quality made in Germany.

With passion, we develop future-oriented measuring and control devices for quality assurance of wires and cables, such as the **CENTERVIEW**8000. A non-contact gauge providing continuous concentricity, diameter and ovality measuring values during the extrusion process. An innovative scatter plot diagram shows the distribution of short-term concentricity variations to ensure a perfect conductor concentricity for increased cable quality and process optimization.

- 8-point concentricity, 4-axis diameter and 8-point ovality measurement for the highest precision even at microcoax cables
- Auto-positioning of the gauge head to the conductor position for optimum ease of use



www.sikora.net/centerview8000

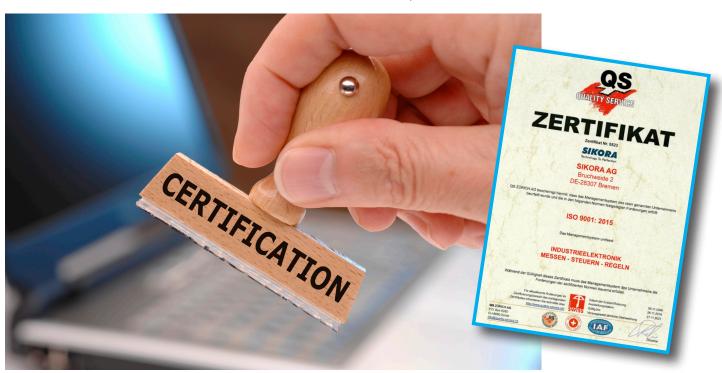
WE STRIVE FOR QUALITY

SIKORA stands further for the highest quality, long-life products and professionalism – certified according to ISO 9001

Since 1993, SIKORA has been embracing its annual surveillance audits as well as the re-audits every three years and is certified according to EN ISO 9001. During this interview, Arne Heel, Quality Manager at SIKORA, explains why this certificate is special and why SIKORA customers can rely on the highest quality and optimized processes.

What has changed with the new certificate compared to DIN EN ISO 9001:2008 and what are the implications for daily routines at SIKORA?

One of the most important changes of the new DIN EN ISO 9001:2015 is the very distinctive process-oriented approach. Work steps are not evaluated and defined individually anymore, but the whole process is assessed, so that



25 years uninterrupted ISO certified – that is remarkable. How does SIKORA ensure to meet the high requirements of ISO 9001 standards?

At SIKORA, quality management is practiced in every department. In order to support our employees, we defined quality related company principles to help with daily decision making and work flows. It is important for us to accurately evaluate customer requests through constant self-assessment as well as information and knowledge management in order to align accordingly the entire product process from development to delivery.

all necessary work flows can be seen in the overall context. All parties involved, performance indicators as well as a comprehensive risk and opportunity management are considered. Due to continuous developments of these processes, customers can be assured that the devices are produced and delivered under strict quality standards, adapted to meet current market requirements. Therefore, they can rely on long-life, maintenance-free functionality from the first day, a quick amortization and professional support.

Mr. Heel, thank you for the interview.

SIKORA DEVICE TRAININGS

With SIKORA, users are fit to face the future

SIKORA measuring and control devices are intuitive and easy to operate. A short introduction is sufficient to get the basic functions across to the user. Nevertheless, a comprehensive user training for each device pays off for a number of reasons.

When acquiring a SIKORA device, customers have clear requirements. Those might be saving materials and costs, the optimization of quality and efficiency or stability of processes – in any case, customers find the right technical solution for their special

requirements at SIKORA. This reveals the first reason for an individually tailored user training. The devices work most efficiently if users know the comprehensive scope of functions, are able to ensure the direct and professional maintenance and therefore, exploit the whole potential for their production line. Thus, each training results in an investment for the future.

At the same time, companies motivate their employees by including them in production processes and therefore, creating a stronger identification with the company. Productivity is increased as well as trained employees master daily challenges more easily.



Still, the main reason for intensive training is the resulting competitive advantage. Market requirements constantly change. Yesterday's standards may already be outdated today. Therefore, looking outside the box is always worth it.

SIKORA trainings provide a deeper insight into the system's possibilities and users can use their special knowledge for process optimization. Therefore, companies and their employees can be sure to always get the maximum out of the SIKORA device and, simultaneously, are able to examine, analyze and optimize production processes in a future-oriented way.

Being one step ahead with SIKORA

SIKORA service engineers offer a combination of theoretical and practical user trainings for all measuring, control, inspection, analysis and sorting systems of the comprehensive product portfolio that are individually tailored to customer requirements and wishes.

Make your company fit for the future and contact us today at $+49\,421\,48900\,50$ or <code>service@sikora.net</code> to plan your training.

More information at www.sikora.net/en/service/trainings.

GROWN FOR THE FUTURE

SIKORA's new building for production, logistics and development has been completed

After about one and a half years of construction time, SIKORA has now inaugurated the new building for production, logistics and development at its headquarters in Bremen, Germany. With its total area of 7,000 square meters (8372 y²), the building more than triples the previous space.

The new building is a strategic investment for the future and the answer to SIKORA's strong growth and diversification into new markets as well as the accompanying technological new developments. "The building provides the needed space to further expand and is, in every respect, state-of-the-art", says Peter Früchtenicht, Director Operations at SIKORA.

Special attention was put on assuring optimized material flows from incoming goods to the production and further onward to the shipping based on modern lean production concepts.

"An efficient production enables us to flexibly and quickly react to technological developments and customer wishes. All whilst guaranteeing consistent quality and delivery reliability", explains Früchtenicht.

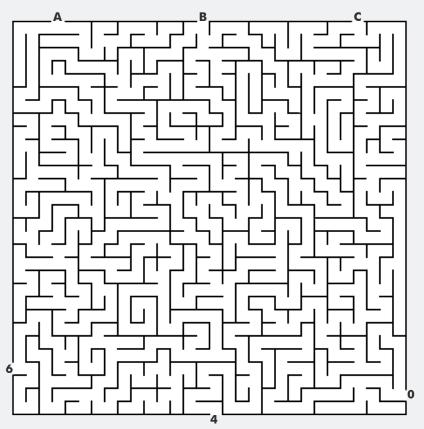
The four storey building accommodates, in addition to production, logistics as well as research and development departments. An extended communication area in the upper stacked storey with its flexible meeting and creativity rooms builds a bridge between technology and communication.

With 220 employees at headquarters in Bremen and 70 employees spread on 14 international subsidiaries, SIKORA serves customers with innovative product solutions and individual service. The measuring, control and inspection systems are solely manufactured at the headquarters in Bremen, Germany.



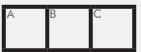
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RAFFLE



SIKORA labyrinth

Find the three paths through our labyrinth and write the solution numbers into the regarding boxes.



Send us your solution via email by July 31, 2019, to: extra@sikora.net

Win one of three Tie Studio Bluetooth 4.2 TRULY PRO (X2T) In Ear Headsets with Noise Cancelling.

(Image similar)



Your contact details will not be passed on to third parties. Each correct answer takes part in the raffle. Employees of SIKORA AG and SIKORA Holding GmbH & Co. KG and their relatives are excluded from participation. Each player can only participate once. We value the first email, all subsequent e-mails will be considered invalid. The legal process is excluded. GOOD LUCK!

Congratulations to the winners of the word puzzle – SIKORA EXTRA edition 3/2018. Solution: International

- Davide Zorzi
- Joan Totusaus
- Birgit Rück

NEXT EVENTS



• Interwire May | 13-16, 2019 | Atlanta, GA, USA



• wire Russia | Jun 18-20, 2019 | Moskow, Russia



• wireshow | Sep 4-6, 2019 | Shanghai, China

Sustainability at SIKORA

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