

# SIKORA EXTRA

Your magazine for Wire & Cable | Optical Fiber

Stefan Küker, Director SIKORA service back office, is focused on innovative processes and optimization plans

Special topic:  
Highlights of the wire 2018  
SIKORA says Thank You for your visit

04

Interview: Abraham Ayala  
Director SIKORA MEXICO

07



**Dear readers,**

Customer benefit is an essential part of SIKORA's company philosophy. As a reliable partner, we have been developing future-oriented technologies to optimize your production processes for 45 years.

We would like to seize this opportunity to thank you for your trust and your continuing partnership. This year again, SIKORA registered a significant increase in visitors at the wire. The profound professional exchange at the exhibition enables us to cater to your requirements and to find the optimal technical solution. On page 4, you receive an overview of the technical innovations that were presented to visitors at the wire 2018.

In order to assist you optimally also aside of exhibitions, we expanded our global sales and service network. Since 2017, Abraham Ayala has been leading the newly established SIKORA subsidiary in Mexico. On page 7, you can learn about the potentials he sees for the Mexican market.

Choosing the right measuring device for your production line is not always easy. On page 10, we reveal the aspects that should be considered when making this decision.

Read these and further interesting topics in this edition. Enjoy reading!

Sincerely,



Dr. Christian Frank  
CEO SIKORA AG

Harry Prunk  
Executive board SIKORA AG



f.l.: Dr. Christian Frank, Harry Prunk

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**YOUR BENEFIT IS OUR  
PERSONAL CONCERN.**



# SIKORA SAYS THANK YOU

## Further increase in visitors at SIKORA's booth at the wire

With more than 70,000 visitors, the wire is the largest leading exhibition for wires and cables. From April 16 to 20, 2018, manufacturers, processors, suppliers, and service providers of the wire and cable industry met in Düsseldorf to exchange on new technologies and trends of the industry. SIKORA convinced visitors with a comprehensive product portfolio of innovative measuring, control, inspection, analysis, and sorting systems and thanks all visitors for such a successful exhibition.

Compared to previous years, an increase in visitors has again been registered at the SIKORA booth at the wire2018, underlining the continuing interest of the visitors in SIKORA's future-oriented solutions. Read in the following, which technological innovations were presented at this year's SIKORA booth at the wire.

### X-RAY 8000 ADVANCED with High-Speed Technology

One highlight at the SIKORA booth was the X-RAY 8000 ADVANCED – a system with the latest High-Speed Technology (HST) that represents a progressive alternative to the successfully established X-RAY 8000 NXT. The system, equipped with 16 measuring sensors, measures the diameter, wall thickness, and eccentricity of medium, high, and extra-high voltage cables in CV lines up to ten times faster than the X-RAY 8000 NXT, and is therefore, predestined for an efficient control.

Excellent are the advantages resulting from the centering: Each adjustment of the centering screws is directly registered and visualized. The higher number of measuring points, compared to the NXT system, simultaneously results in a virtually delay free measurement and immediate control. Both factors optimize the process and ensure the highest quality of cables at maximum material and costs savings.



SIKORA exhibition booth at the wire 2018

# 10 YEARS CERAMIC WINDOWS

Since the market launch in 1993, the X-RAY 8000 systems have quickly established as a global industrial standard for quality assurance during the production of MV, HV, and EHV cables in CV lines. In 2007, SIKORA set up a new standard for the high voltage cable production with the introduction of the X-RAY 8000 NXT. Instead of beryllium windows, SIKORA included ceramic windows in the measuring system to separate the scanners during x-raying from the pressure room of the CV line. The windows' surface does not react with by-products that occur during the cross-linking. Thus, due to the "lotus effect" the windows keep constantly clean without rinsing or mechanical protective equipment. In this way, SIKORA also reacted to the increasing security needs of its customers. In contrast to beryllium, ceramic is non-toxic, which makes the application of ceramic windows unobjectionable. In addition, the material stands out by its high temperature stability and wear as well as corrosion resistance.

Since 2008, ceramic windows have been used in X-RAY 8000 NXT systems as a standard. Ever since the market launch, more than 1,400 CV lines have been equipped with the SIKORA X-RAY 8000/8000 NXT devices.



SIKORA ceramic windows for reliable security and the highest precision



X-RAY 8000 ADVANCED

The High-Speed Technology (HST) is the latest innovation by SIKORA. The focus is on efficiency enhancement due to a fast centering and an automatic control of the product parameters. The basis are fast and reliable measuring values with the HST. For a fast update of the scan data, the system optimizes the scanning time by automatically adapting the scan path to the cable diameter. With the up to 10 times faster measuring rate, compared to the X-RAY 8000 NXT, the X-RAY 8000 ADVANCED contributes largely to quality assurance and process optimization in CV lines.

### **LASER Series 2000 with high-speed lump detection**

Furthermore, SIKORA presented an intelligent innovation of the LASER Series 2000. The diameter measuring devices LASER LUMP 2010 T, LASER LUMP 2010 XY as well as LASER LUMP 2025 T are as of now available with a high-speed lump detection.

The high-speed lump detection is predestined for smaller wire and cable diameters. Their application is especially suitable for the final quality control of data and installation cables as well as automotive cables at the end of production lines. The recording of events (lumps/neckdowns) is triggered and length related. The operator receives a two-in-one system that reduces investment costs and leaves more space in the line as only one gauge has to be installed.

So far, the combination of diameter measurement and high-speed lump detection is unique. It combines the precision of the diameter measurement with a fast and reliable detection of lumps and neckdowns for a perfected quality control. For a preferable comprehensive recording of fault detection, 3-axes measuring systems are used. However, these systems are not fast enough to detect events on the surface of the measurement object. On the other hand, lump detectors are not suitable for

diameter measurement. Only the combination of laser measurement, featuring a relatively low measuring rate, and a lump detector, featuring a measuring rate of 3 x 100 KHz, guarantees a comprehensive quality control of the diameter and surface condition of the measuring object.



### **PURITY CONCEPT Systems – Intelligent light table for automatic material control**

A visitor magnet was the PURITY CONCEPT V, SIKORA's latest offline inspection and analysis system for plastic materials. Equipped with an optical camera, the PURITY CONCEPT V inspects and analyzes any colored and transparent plastic materials.

PURITY CONCEPT V for the inspection and analysis of plastic materials

The system combines the classic light table with an automatic offline material control. By evaluating the image recordings contamination down to a size of 50  $\mu\text{m}$  on the surface of the material are detected, visualized and evaluated according to their size. When inspecting transparent material, contamination inside the sample can also be detected. A clear classification of the contamination and follow-up inspection are available at any time and do not have to be realized manually by the operator. Therefore, the system significantly contributes to quality control and process optimization.



The new LASER LUMP 2025 T with additional lump detection

# BEST PROSPECTS FOR THE MEXICAN MARKET

## Interview with Abraham Ayala, Director SIKORA MEXICO

In 2017, SIKORA opened a further subsidiary in Queretaro, Mexico. With SIKORA MEXICO, the company ensures a fast and efficient support in the region. Abraham Ayala, Director SIKORA MEXICO, explains why he is convinced of the subsidiary's success.

**Mr. Ayala, you are the director of the Mexican subsidiary. In your opinion, what was the reason for SIKORA to open a subsidiary in Mexico?**

Today, Mexico is the country with the most free trade agreements worldwide. That makes Mexico an ideal production location for the automotive and automotive supply industries, and therefore, very interesting for SIKORA. Only in 2017, Audi opened a plant in Mexico and also Mercedes and BMW are currently investing millions in the expansion of their plants. In addition to further automobile brands, the three premium manufacturers from Germany are now represented in Mexico. Therefore, for many automotive suppliers, it stands to reason to relocate their production to Mexico as well. Hence, competition is growing and quality requirements are continuously increasing. For SIKORA, the growing market implies a large customer base that requires comprehensive support. According to SIKORA's philosophy, this is only possible with a locally based subsidiary.

**That sounds like a lot of work and many different requirements. How did you prepare for these tasks?**

Part of SIKORA's company philosophy is the gapless training of new employees. After having received a first introduction to the product portfolio in the American office SIKORA INTERNATIONAL CORP in Peachtree, GA, USA, I was trained on the devices about all used technologies for several weeks at the headquarters in Germany. Here, my studies as mechanical engineering technician came in very handy. Furthermore, I always have the opportunity to contact my sales and service colleagues from all over the world to discuss and find solutions



for customer wishes and requirements. Last but not least, with Jhonathan Ruiz, Technical Sales Manager SIKORA INTERNATIONAL CORP, I have a very competent colleague who actively supports me and the comprehensive customer base with his extensive knowledge that he has gathered for years.

**A large and further increasing customer base as well as solid training seem to be the best prerequisites for future tasks and challenges. What are your goals for the future?**

For me, it is important to transfer the high quality standard of SIKORA products to the customer support and to always advise my customers optimally on sales and service matters. SIKORA has been successfully active in the Mexican market for decades and was able to establish a broad customer base. Furthermore, we are going to use the manifold possibilities the Mexican market has to offer to strengthen our strong position in the wire & cable, hose & tube, optical fiber, and plastics industries.

**Mr. Ayala, thank you very much for the interview!**



# NEW SIKORA SERVICE BACK OFFICE

## Customer satisfaction has first priority



Stefan Küker is discussing the operational planning for the service department

**Whether maintenance of devices or ordering of original parts – customers are looking for a competent contact who is accessible, understands technical backgrounds and offers solutions quickly. The SIKORA service department focuses on short response times, competent advice and customer satisfaction.**

Since March 1st, 2017, Stefan Küker has been managing SIKORA's service back office department at the headquarters in Bremen, Germany. Short throughput times are the core of his strategy that he applies to all services of his department in Bremen. Whether repairs, supply chain management of original parts or support, the studied graduate engineer optimally implements processes and optimization plans.

### Keeping the connection to the base

Decisive for Küker to take the job at SIKORA was, amongst other things, the company structure that has been valued and maintained by the medium-sized company since its foundation. Each employee receives the possibility to build on strengths and to develop personally and professionally. "For an international corporation, this is a prerequisite for success", says Küker. "At SIKORA, the healthy mix of service and internationality is just right", he continues.

### "Each change is a chance"

Learning from his own experiences when starting at SIKORA, Mr. Küker knows that each change is also a chance. His employment marked the restructuring of the service department that enables an even faster and more focused support and sets new quality standards.

The functional segmentation of the areas service back office, service sales as well as field service opens up further scope of action. A clear distribution of tasks enables colleagues to focus more on their tasks and newly created positions, as the project organization of field services, release resources.

"For customers this means always competent contacts, optimal on-site assistance due to globally available service engineers as well as comprehensive services that are perfectly adapted to their needs", says Küker and continues: "Furthermore, increasing quality standards and optimized processes continuously improve cost efficiency within the department that is beneficially transferred to our customers."

### Free support

For a fast and technically competent support customers can contact our free support in Bremen from 8 am to 5 pm (MEZ) – outside these hours our worldwide offices are available.



# COMPREHENSIVE SERVICE PACKAGE

Detailed information in our new service catalog

## Full service package

SIKORA guarantees optimal customer support worldwide. This promise is completed by the comprehensive service portfolio. The new service catalog describes all services in detail. From the installation and commissioning as well as maintenance and calibration to consulting and training. In the service catalog, customers will find suitable services for their requirements.

As, for example, SIKORA service programs, which include the organization of maintenance and calibration appointments, operator trainings for a professional usage of the devices, a current and calibrated calibration equipment as well as the exchange of wear parts with the latest original parts by SIKORA. Or the 13.3" industry tablet Smart Assistance Manager (SAM) that, due to its various application possibilities, can be used as an offline diagnosis device and/or online as a direct connection to SIKORA's service engineers.

For further information on these and all other SIKORA services, please refer to the SIKORA service catalog. You may download the catalog free of charge and without obligation on the SIKORA website [www.sikora.net/en/service](http://www.sikora.net/en/service) or request it at [service@sikora.net](mailto:service@sikora.net).

Service contact

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[service@sikora.net](mailto:service@sikora.net)



New SIKORA service  
catalog with comprehensive  
service portfolio

# THE OPTIMAL MEASURING DEVICE FOR YOUR LINE

## Measuring rate, averaging, and "accuracy" provide valuable information

When comparing two measuring devices, often the question arises, which device is the "best". It seems to be easy to compare numbers for which "more" or "less" is considered to be better. However, this simplification often is of little significance. For example, in the area of digital photography, the size of the sensor, and therefore, of the single pixel, is just as important as the total number of pixels. Nevertheless, the information of the number of pixels is the most important selling point.

The measuring rate of a measuring device is also a significant comparison criterion that acknowledges "more" as "best". However, this sole information is not sufficient – important is the knowledge about the absolute accuracy and repeatability of a single measurement. It may occur that a measuring device with a higher measuring rate, but poorer single value precision for controlling or characterization of the process is less suitable than a device with a lower measuring rate, but higher single value precision. For instance, this is the case when a lower single value precision requires a long averaging time. Then, there is the risk of actual product variations occurring within this averaging time being artificially fined – in the worst case the specifications are even violated without being visualized by the measuring device.

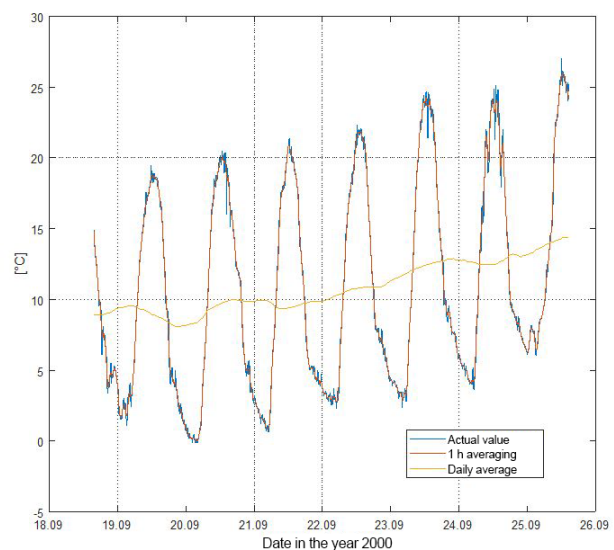
### Variations of measuring values may have different causes:

1. Actual product variation
2. Systematic fault of the measuring device (fault is always the same)
3. Random fault of the measuring device (fault varies with each single measurement)

The random error of a measuring device can be reduced by averaging – the measuring value is more and more smoothed out with each averaging.

The difficulty occurring by averaging the measuring value can be visualized by the example of a temperature curve of one week in September 2000.

The displayed "actual value" are single measurements taken in a ten-minute interval. An averaging over an hour only smooths the extreme values, within 12 hours, the temperature



profile is significantly "fined". If a daily average is calculated, information on daily temperature variation is completely lost. This corresponds to the situation when a measuring device needs so much time generating a stable measuring value that the actual product variation is not recognizable anymore.

For an objective comparison of two measuring devices, the specifications of the manufacturer are to be questioned and brought to a comparable basis. Answering the following questions helps in the process:

- **"Averaging depth":** Is the information based on single or averaged values? If the information is based on averaged values: How many values are averaged over which period of time?
- **"Precision":** What is the spread width of these measuring values?
- **"Accuracy":** Which absolute measurement uncertainties do these measuring values have?
- **"Environment":** Under which conditions is the information valid?

# RAFFLE

					9		<sup>B</sup>	6
	4	8				3	9	
6			8	1				
2		<sup>A</sup>	1				7	
	6		2		4		3	
	7				6			1
				8	5	<sup>C</sup>		7
	9	5				8	6	
7			9					

## SIKORA SUDOKU

Complete the SIKORA Sudoku by entering the numbers from 1 - 9 in the corresponding fields. Each number can only be entered once per row and line as well as the blocks.



Send us the numbers of the answer boxes via email by October 31, 2018, to: [extra@sikora.net](mailto:extra@sikora.net)

Win one of three TrackR Bluetooth-Tracker (multifunctional tracker)



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 alphabetical jumble – SIKORA EXTRA edition 1/2018:

- Orif Shamsiyev
- Bahador Eslamdoost
- Martin Stoll

## NEXT EVENTS



• wire China Sep 26-29, 2018 | Shanghai, China



• IWCS Oct 14-17, 2018 | Providence, RI, USA



• Wire & Cable India Nov 27-29, 2018 | Mumbai, India

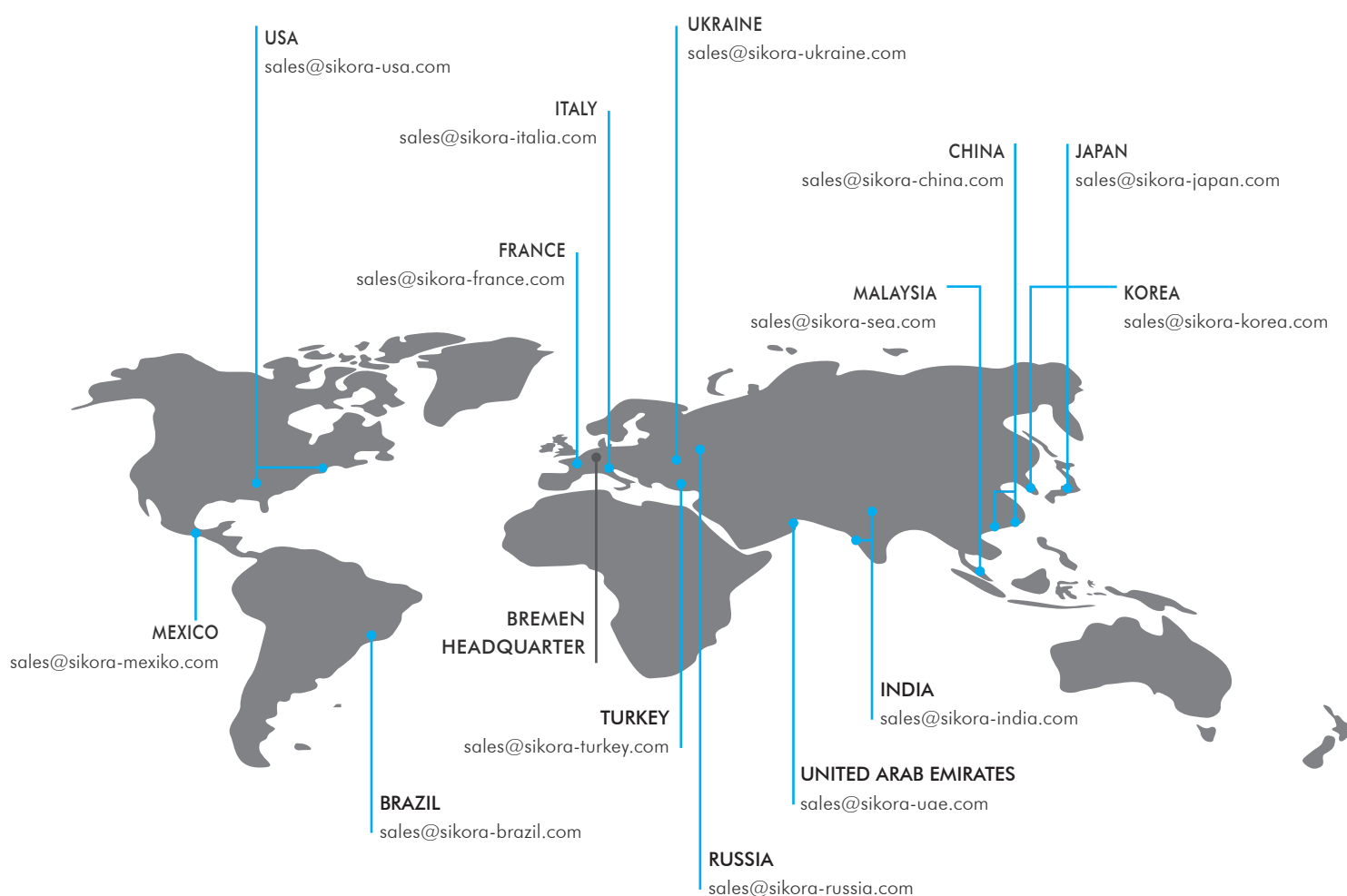




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## Technology To Perfection

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