



Service

Highest reliability, continuous availability
and maximal value preservation for your
SIKORA technology

SIKORA
Technology To Perfection



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Introduction

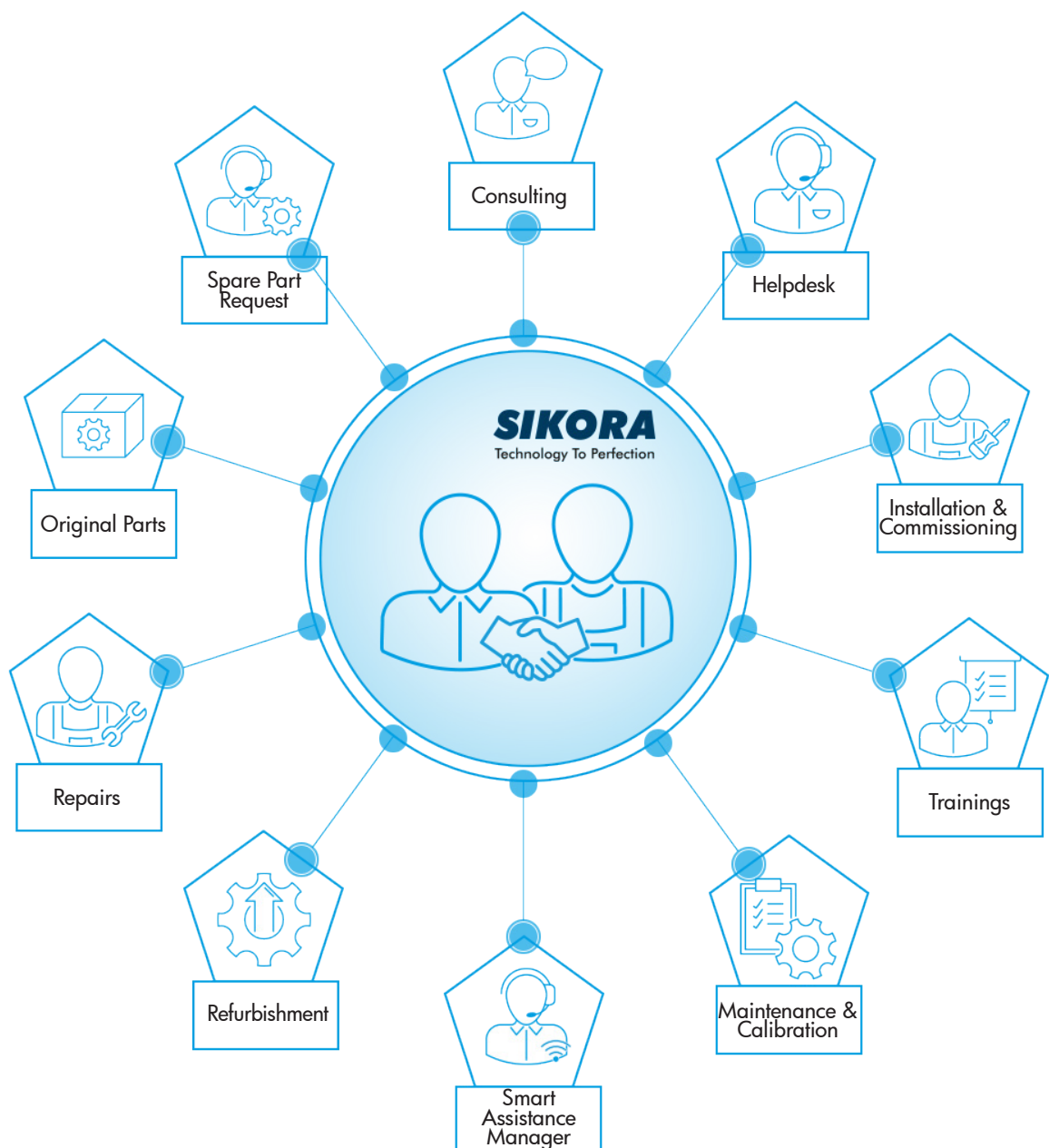
SIKORA AG is a leading manufacturer and supplier of innovative online measuring, inspection, analysis and sorting technology for the wire and cable, optical fiber, hose and tube as well as sheet, metal and plastics industry.

Since 1973, the high-class devices have been developed and manufactured at the headquarters in Bremen, Germany. When it comes to service and sales, SIKORA is globally active with offices in Brazil, China, France, India, Italy, Japan, Korea, Malaysia, Mexico, Russia, Turkey, Ukraine, USA and the United Arab Emirates. International service locations ensure fast and reliable customer support on site, at any time.

Wherever you are – we are close by

With professional services and high-quality original parts, SIKORA takes care of the reliability of your devices.

Preservation of reliability and efficiency of your SIKORA measuring, control, inspection, analysis and sorting devices as well as their permanent availability is our promise. Therefore, the SIKORA service is the first choice. More than 40 highly qualified employees globally provide a fast and competent support. From installation and commissioning, maintenance and calibration up to consultancy and trainings. You truly receive fitting services for your requirements.





1 Consulting & Helpdesk – Wherever you are, SIKORA is there for you

Our claim “Technology To Perfection” is not only reflected by our future-oriented systems for quality control. It also means that we always and anywhere support you with individual consulting and professional service.

Therefore, you have a permanent contact person at SIKORA. Whether you are looking for suitable measuring and control technique for the modernization of a production line or for a suitable inspection and sorting system while planning a new plant – your consultant is there for you personally.

SIKORA service engineers do not only consult you on site. If you need short-term support, highly qualified helpdesk

employees in Bremen, Germany, as well as in the service subsidiaries are available. Each specialist for the different SIKORA devices has years of field service experience and is able to help you with expert knowledge. The colleagues from Helpdesk support your concerns via phone, email or via the Smart Assistance Manager (SAM), which enables a remote diagnosis.

Therefore, even outside of the business hours of your closest subsidiary, you have the possibility to contact SIKORA service engineers in other countries if needed. SIKORA's global service network ensures that you always get the best solution as quick as possible.



SIKORA service engineers are there for you!

Contact us directly at
+49 421 48900 50 or service@sikora.net

2 Installation & Commissioning – Precise measuring values from the beginning



With SIKORA's measuring, control, inspection, analysis and sorting devices, customers receive precise values and therefore, more efficient production processes as well as reduced costs. In order to assure that the systems provide exact measurements from the beginning and are optimally integrated into the line, SIKORA offers installation and commissioning by experienced service engineers.

Whether for new or existing customers – professional installation and commissioning by a SIKORA service engineer entails many advantages. Thanks to the skilled installation, a fast availability of the devices is ensured. Furthermore, correct parameter settings provide optimal use of equipment and therefore, precise measuring data. In addition, the related instruction of the line operator prevents downtimes by operating errors and guarantees optimal usage of all available functions.



Advantages

- ✓ Fast availability of the systems
- ✓ Optimal device usage and precise measuring values
- ✓ Instruction of line operator by an experienced SIKORA service engineer for optimal operation and long-term use

Typical process of commissioning

- ✓ Verification of mechanical installation tasks that have been made by the customer in advance
- ✓ Testing of the wiring, water supply, and other necessary requirements
- ✓ Check of all electronic components
- ✓ Setting of parameters in the software
- ✓ Test run under production conditions
- ✓ Employee training at the device



3 Trainings – Service trainings for knowledge and optimal productivity

One of SIKORA's prime concerns is to ensure that you and your team are familiar with the systems you are using.

Therefore, SIKORA supports customers with know-how and comprehensive technical trainings – aimed at your individual requirements.

Your advantages

Nobody knows your production line better than your own maintenance employees and in the case of an event, nobody is faster on site.

A fast error diagnosis minimizes the downtime of your devices and therefore, of the production line.

Excellently trained employees guarantee an excellent maintenance and fast troubleshooting.

What you can expect

SIKORA service engineers offer a combination of theoretical and practical applications. Therefore, you benefit from highly professional trainings. Furthermore, you learn how to optimally configure your device and can make optimal use of all functions of your device.



General topics (theory)

- ✓ Device presentation
- ✓ Basic measuring principle
- ✓ Safety instructions
- ✓ Device commissioning
- ✓ Control during automatic mode
- ✓ Details on modules incl. LED status and testing points
- ✓ Manual chapter "Maintenance and error search"

For each training, we provide specific printed material in German and English.

General topics (practice)

- ✓ LED status display and testing points of single modules
- ✓ Handling the diagnosis software/Smart Assistance Manager (SAM)
- ✓ Regular maintenance
- ✓ Device check with a troubleshooting list
- ✓ Searching and fixing of errors

For more detailed information and data, visit our website www.sikora.net/service/trainings or book your training directly at trainings@sikora.net.



4 Maintenance & Calibration – SIKORA measuring systems always in top form

Regular maintenance and calibration according to ISO 9001 ensure reliable measurements for many years and a high availability of the devices of up to 99.98 %. Functional testing, replacement of wear parts, calibration with certified calibration equipment, testing of operation safety and many further services are included in our carefree maintenance packages for one, three or five years.

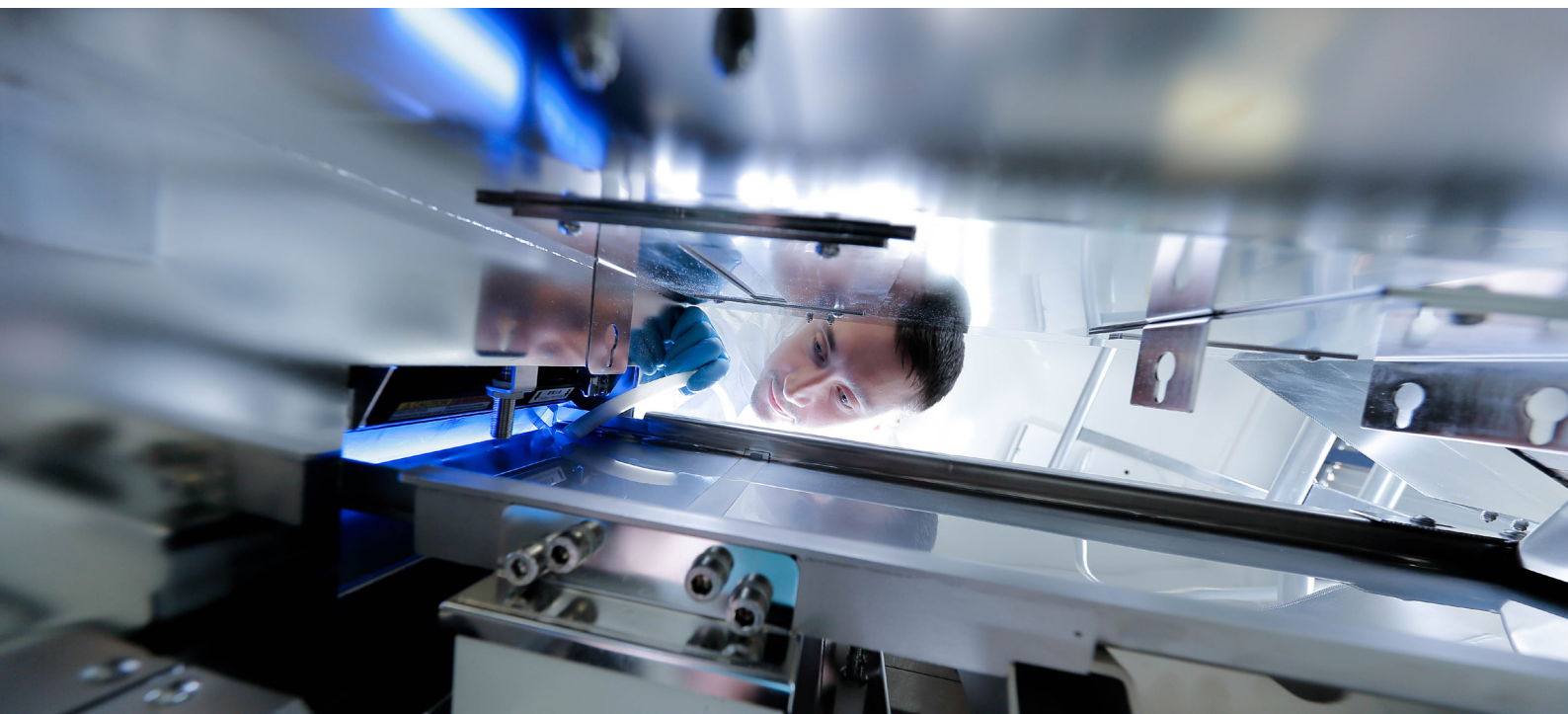
Maintenance

To guarantee the availability for many years, a regular professional maintenance of the devices by an experienced service engineer is indispensable. In addition to the functional testing

and basic cleaning, especially the testing of operation safety is essential to permanently safe man and machine.

At on site calibrations at customer plants, the installation of devices into the line is reviewed. Therefore, customers can be assured that their SIKORA devices are always optimally integrated into the production and provide the best measuring results.

In the course of the maintenance, the SIKORA service engineer offers an operator training, for example, for new line operator and informs about all performed tasks during the follow-up discussion.



Calibration

For the required monitoring of measuring devices according to ISO 9001, SIKORA offers a calibration service. By means of this calibration, the measuring accuracy of the devices is controlled and documented.

Especially beneficial is the fact that the customer does not need his own calibration equipment, and therefore, no personnel deployment of the customer is necessary. SIKORA service engineers prepare their visit at a customer plant in detail and have all necessary tools as well as calibrated calibration standards.

The successful maintenance and calibration are certified by SIKORA with a calibration certificate as well as a calibration plaque. Furthermore, customers receive the SIKORA calibration statement, which explains the international standards that are the basis for the calibration.

Benefits of the maintenance and calibration service

- ✓ Functional testing and basic cleaning
- ✓ Testing of operational safety
- ✓ Installation check*
- ✓ Calibration with certified calibration equipment according to the standards of DIN EN ISO 9001
- ✓ Employee training*
- ✓ Device-specific maintenance and follow-up maintenance dialog
- ✓ Calibration certificate/statement

*Only for on site calibration



SIKORA calibration statement

All calibrations are performed according to specifications of DIN EN ISO 9001.

The issued calibration certificate documents the tracing back to national measurement standards in order to demonstrate the measurements units in accordance to the International Systems of Units (SI).

The data given in the calibration certificate fulfills the requirements of DIN EN ISO/IEC 17025. Besides that, a clear statement about the status of the device is given as well as the information, if the device operates according to device specifications.

Inhouse calibration

The calibration of devices is usually done directly at a customer's plant by a SIKORA service engineer.

Upon customer request, the devices can also be sent to SIKORA's headquarters in Bremen, Germany, for maintenance or calibration, or to one of the global service subsidiaries that is equipped for the task (Inhouse calibration service). For this time, SIKORA is pleased to offer a loan device to continuously ensure the product quality.

SIKORA service programs

According to ISO 9001 standards, measuring and testing equipments have to be checked and calibrated regularly.

SIKORA supports

SIKORA offers individual adjusted service programs for one, three or five years. These include the organization of regular maintenance and calibration appointments, information on the professional handling of the devices, always up-to-date calibration equipment as well as the exchange of wear parts with state-of-the-art spare parts.

Transfer your responsibility

Rest assured that your SIKORA measuring, control, inspection, analysis and sorting systems are always maintained and calibrated according to the ISO standards. Transfer your responsibility for the services defined in the service program to SIKORA – your reliable partner for all your production needs.

Advantages of SIKORA service programs

- ✓ Your employees keep your machines running, SIKORA takes care of the measuring, control, inspection, analysis and sorting systems
- ✓ Decrease of inventory level for spare parts
- ✓ Regular maintenance of the devices
- ✓ No purchase and no maintenance of your own calibration equipment
- ✓ Production without interruption as the devices remain in your production line
- ✓ No engagement of your own employees



5 Smart Assistance Manager – Remote service for support in real time

The SIKORA Smart Assistance Manager, in short SAM, is a 13.3" tablet, optimized for the rough industrial environment. Due to diverse applications, the SAM can be used offline as a diagnosis device and/or online as the direct connection to SIKORA's service. Furthermore, device manuals are saved on the SAM and can be retrieved at any time.

One device for professional service

With the Smart Assistance Manager, customers are able to establish a direct connection with a SIKORA support engineer to receive instructions for all maintenance, support and diagnosis tasks via the integrated video chat feature (5 MP camera). SIKORA's support engineer uses the SAM for a direct connection to the SIKORA device to receive an immediate fault diagnosis in real-time or to upload software updates.

The assignment of the Smart Assistance Managers begins with the installation of the measuring device. With the SAM, customers show the environmental conditions as well as the line configuration, and the SIKORA support is ready to assist.

Due to diverse connection possibilities, such as USB 3.0, RJ45 Ethernet, Bluetooth 4.0, Wi-Fi and the LTE/UMTS module, as well as various application possibilities, the Smart Assistance Manager is an important part of modern production lines, to support maintenance and diagnosis tasks.

Fast, proficient and reliable support for our customers all over the world – SIKORA meets these requirements again with the Smart Assistance Manager (SAM). For customers, this means significantly more efficient support, and therefore, optimized service processes.

Benefits – Smart Assistance Manager

The individually tailored license module always guarantees the latest version of the SIKORA diagnosis software for a live session, fault detection or as an offline diagnosis system for all SIKORA measuring, control, inspection, analysis and sorting systems.

- ✓ Offline mode: Use as diagnosis device
- ✓ Real-time instructions for maintenance and troubleshooting
- ✓ Latest version of the SIKORA diagnosis software
- ✓ Diverse connection possibilities for all requirements
- ✓ Independent of company network with LTE/UMTS connection
- ✓ Direct contact between the customer and a SIKORA service engineer via video chat



Professional support by a competent SIKORA service engineer



6 Refurbishment – Keep your X-RAY 8000 up to date

With the ever-increasing networking of humans, machines and production during the running manufacture in the era of Industry 4.0, requirements also increase towards devices, which have been proven themselves in the production process for years and which are indispensable.

Against this background, the refurbishment is gaining more importance. Modernization measures that meet the increasing requirements, extend the lifetime of devices extensively.

Modernization performances

Already today, SIKORA offers for all X-RAY 8000 devices the following options for the modernization of existing display and analysis units:

- Modern processor system with 22" touch screen monitor
- Current X-RAY 8000 NXT software with 8-point visualization
- Current interface cards and control modules

Ensuring benefits for the future

When refurbishing your existing X-RAY 8000/X-RAY 8000 NXT, the device is equipped with all future-oriented technologies that are also installed in the latest X-RAY 8000 NXT systems. Therefore, your device is best equipped for the future.

Preventive maintenance

The refurbishment includes a guaranteed spare parts supply for the next ten years.

We would be pleased to send you an individual quote.



Production data of the X-RAY 8000/X-RAY 8000 NXT is clearly visualized at the 22" monitor of the processor system

With the device modernization of your X-RAY 8000/X-RAY 8000 NXT you receive the following benefits:

- ✓ Modern processor system with 22" monitor and touch screen operation
- ✓ Current X-RAY 8000 NXT software with 8-point visualization of eccentricity for all three insulation layers
- ✓ Latest interface technology (e.g. USB, LAN, OPC DA/UA, Profinet IO, Profibus-DP, DeviceNet) for data traffic with a plant computer or PLC (programmable logic controller)
- ✓ Remote diagnosis with the SAM (Smart Assistance Manager) possible
- ✓ Guaranteed spare parts availability for the next ten years





7 Inhouse & On site servicing – Fast and reliably at your side

SIKORA's precise measuring and control devices as well as reliable inspection, sorting and analysis systems are distinguished by a long lifetime. To ensure that after years of usage the devices are still as reliable as on the day of commissioning, SIKORA offers you a comprehensive service portfolio for supporting your devices.

On site support

Especially for large devices, whose shipping includes high expenses, or devices that are indispensable for the running production process, an on site servicing is advisable. This is performed by service engineers from SIKORA's headquarters in Bremen, Germany, or from a service subsidiary on site at the customer's plant. With the international service network, SIKORA globally ensures a fast and efficient service in the respective national language.

All SIKORA service engineers rely on years of experiences gained in production plants all over the world and use these to optimally meet your individual requirements.

If an on site servicing is not possible, SIKORA is pleased to provide a loan device to continuously ensure the product quality for the duration of the servicing.





Inhouse support

During an inhouse servicing, the devices are repaired at SIKORA's headquarters in Bremen, Germany. By using their expert knowledge and the exchange with other departments, such as production, research & development or sales, SIKORA service engineers ensure the functionality of the devices. All components are exclusively replaced by SIKORA original spare parts.

After the successful device testing in the course of the servicing, all measuring devices are calibrated and receive a new calibration certificate.

No matter which servicing method you may choose – SIKORA is at your side.

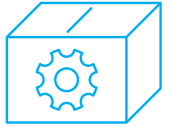
Benefits inhouse support:

- ✓ Loan devices to bridge the time of servicing
- ✓ Specialists from different departments on site
- ✓ New calibration and calibration certificate in the course of servicing

Benefits on site support:

- ✓ Short response times
- ✓ No transport costs for sending in the device
- ✓ Worldwide availability due to the global service network
- ✓ Support by highly qualified SIKORA service engineers

8 Original parts – Your SIKORA device deserves the original



SIKORA's high-precision measuring and control devices as well as the first-class inspection, analysis and sorting systems are designed for a long operating time with high availability. To ensure that the devices provide precise measuring results for years, only original SIKORA spare parts should be used for the exchange of wear parts. SIKORA offers customers the right spare part for each device – including personal consulting and installation service.

Original parts – Packages

Prefabricated spare and maintenance packages are available for selected SIKORA devices. They include all typical wear parts so that customers are able to cover the most common events.



Original parts

SIKORA meets its high requirements for quality even in the smallest components of the measuring, control, inspection, analysis and sorting systems. From the indicator light to X-ray tubes, SIKORA only uses high-quality and audited parts in the devices. In order to maintain the reliable performance of SIKORA devices for many years, all spare and maintenance parts can be ordered directly at SIKORA.

Depending on the customer's requirement, quotes are offered for individual spare parts packages covering all customer devices in a plant. Therefore, inventory levels for wear parts are managed optimally.

Support and spare parts request

At www.sikora.net/en/services you find a list of the most important services by SIKORA. Learn here how SIKORA supports the installation and commissioning, maintenance and calibration as well as training. A special highlight is the online support and spare parts request. Use this form to quickly send targeted requests to SIKORA's service department – around the clock.

Simply fill in the form at the service page and a service engineer will contact you as fast as possible. Your advantage: Thanks to your information, the SIKORA employee is able to get familiar with your questions even before the first contact to ensure quick consulting.

9 SIKORA service network – Wherever you are, we are close by



For SIKORA, a good customer relationship goes far beyond the purchase of a device. We want to ensure that customers receive precise measuring values even after years. Value preservation for devices, reliability, efficiency and availability are the pillars on which SIKORA's service is built.

More than 40 service employees worldwide advise and support SIKORA's customers in all service aspects. For that, they can rely on a comprehensive service network with 14 service subsidiaries to ensure the fast and uncomplicated customer support – in the national language.

Whether consulting, installation and commissioning, detailed trainings, calibration and maintenance in our carefree program, remote service with the Smart Assistance Manager (SAM), refurbishment, worldwide support or fitting spare parts – the SIKORA team is always there for you!

Ask for your individual offer today:
service@sikora.net

SIKORA

Technology To Perfection

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