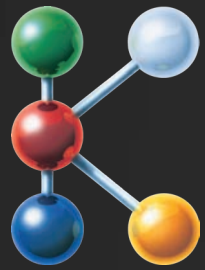


# SIKORA EXTRA

Your magazine for Hose & Tube, Pipe | Sheets

@



Hall 10  
Booth F14



## VISIT US AT K 2022

SIKORA at K 2022

04

CENTERWAVE 6000: New models –  
greater flexibility

07



Dear readers,

Finally, we are able to get together again! We are delighted that the long wait is now over and that the K is just around the corner. From October 19 to 26, 2022, the leading trade fair for the plastics and rubber industry opens its halls for its international audience. SIKORA, of course, will be on-site in Düsseldorf. We cordially invite you to visit us at our booth F14 in hall 10.

Experience for yourself our trendsetting technologies for quality control during tube, pipe and hose extrusion. In this issue, we will give you a preview of our booth's highlights.

This includes our two new CENTERWAVE 6000 models for small and large diameters, which will make their world premiere at the trade show. Besides, we will show you how the X-RAY 6000 PRO improves the production process of gas

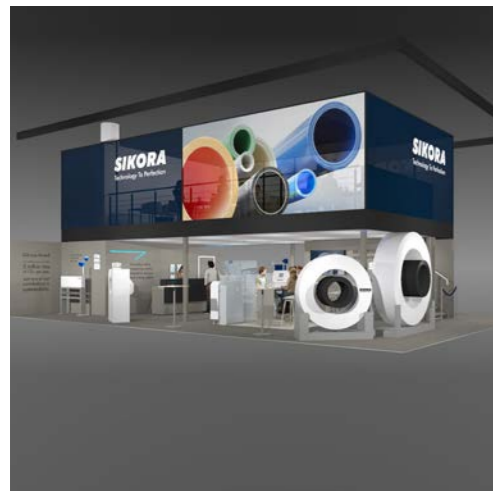
pipes and how quickly you can calculate the return on investment of an investment in a SIKORA device. Furthermore, we will introduce our SIKORA Premium Service.

We look forward to welcoming you in person at the K and speaking with you about our technical projects. Until then, I hope you enjoy reading this issue!

Sincerely,

Dr. Christian Frank  
CEO SIKORA AG

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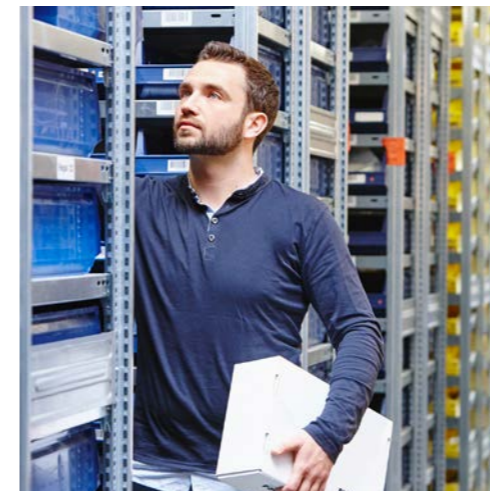
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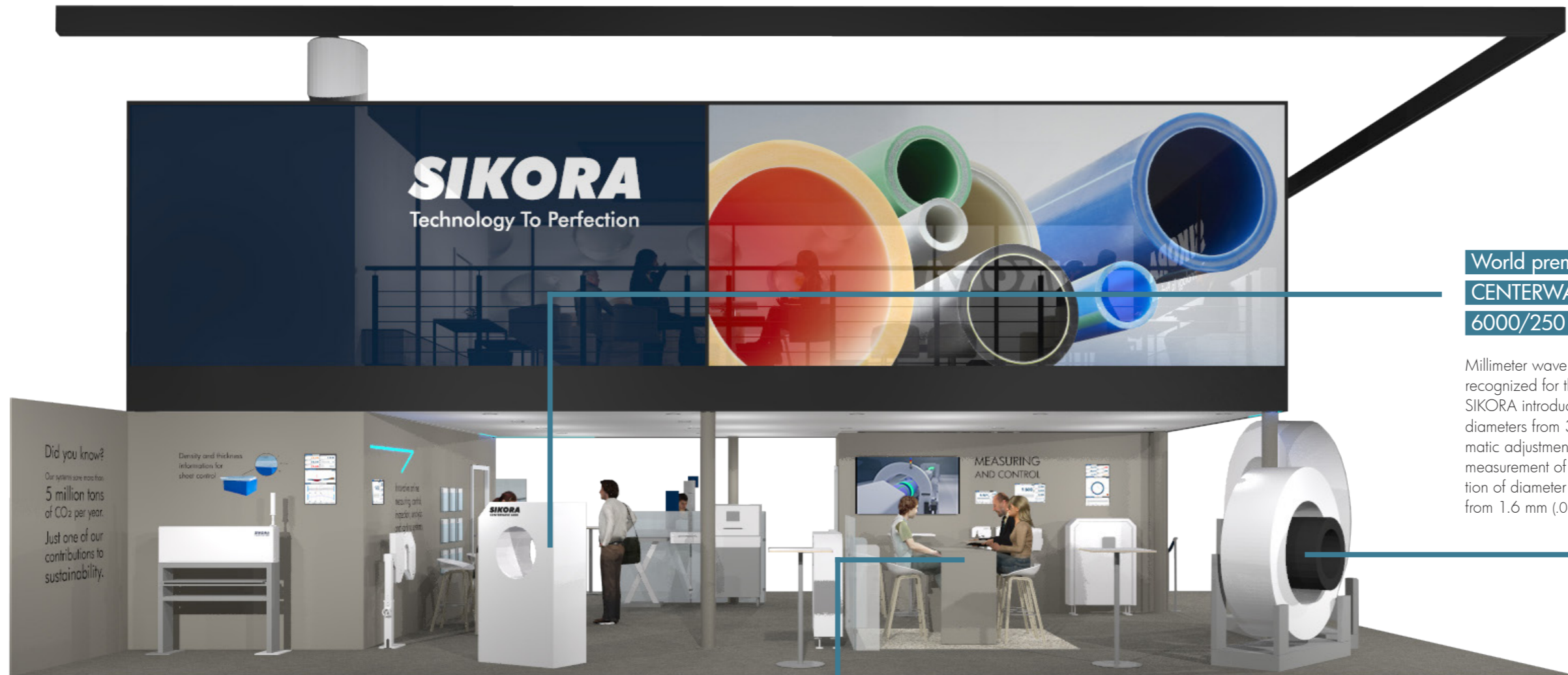


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# SIKORA AT K 2022

Pulse of a new generation

The focus of SIKORA's trade show appearance at K 2022, from October 19 to 26, 2022, will be the world premiere of two new models of the CENTERWAVE 6000 family. The CENTERWAVE 6000 measures tubes and pipes by millimeter wave technology early in the extrusion process. As savings are part of the SIKORA technologies, visitors will learn how they can save material, costs and CO<sub>2</sub>. The appearance of the Bremen-based company at the K promises pure innovation and sustainability.



**World premiere: The latest model of the CENTERWAVE family – CENTERWAVE 6000/250 for small product diameters**

Millimeter wave technology from SIKORA was previously recognized for the measurement of larger pipes. At the K, SIKORA introduces the CENTERWAVE 6000/250, for diameters from 32 to 250 mm (1.3 to 9.8"). Due to its automatic adjustment of the rotation speed, it enables a 100 % measurement of the wall thickness as well as the determination of diameter and ovality for tubes with wall thicknesses from 1.6 mm (.06"). Learn more on page 6.

**The SIKORA Service: Also represented at our booth**

Maintaining the availability and efficiency of the SIKORA systems at the customer's site is SIKORA's top priority. At the K, the SIKORA Service team presents the entire range of its service portfolio. From installation and commissioning of the devices to, consulting and training, our Service staff is always ready to meet the individual customer's needs.

**World premiere: New model CENTERWAVE 6000/1200 for dimension measurement of pipes with 250 up to 1,200 mm diameter**

SIKORA offers the CENTERWAVE 6000 for a 360 degree inline measurement of wall thickness, inner profile and diameter as well as ovality over the entire circumference of plastic pipes. With the world premiere of the CENTERWAVE 6000/1200, a new model is now available that specifically covers diameter ranges from 250 to 1,200 mm (9.8 to 62.9"). The CENTERWAVE 6000/1200 is designed to meet the requirements of large-diameter pipe manufacturers. In-line, the system supports immediate centering, seamless and reliable quality control, and optional automatic control. All models of the CENTERWAVE 6000 series are characterized by their innovative measuring principle based on millimeter wave technology and the automatic determination of the exact refractive index of the material at the measuring position. Directly after the vacuum tank, the knowledge of the refractive index, in addition to the measurement, provides an accurate prediction of the wall thickness and diameter values to be expected after cooling at the end of the extrusion line. The advantages of the technology are clear: the "one-button operation" rules out operating errors or a wrong parameterization. Target dimensions are quickly achieved, start-up scrap is avoided, top quality is ensured and processes are optimally controlled.

# WHETHER SMALL TUBES OR LARGE PIPES – YOU CAN RELY ON THE CENTERWAVE

New models CENTERWAVE 6000/250 and CENTERWAVE 6000/1200 available

Since its introduction in 2016, the CENTERWAVE 6000, with its 360-degree dimensional measurement of plastic pipes, has become an industrial asset. SIKORA now presents two new models for diameter ranges from 32 to 250 (1.3 to 9.8") and 250 to 1,200 mm (9.8 to 62.9"), respectively, which extend the existing product portfolio of SIKORA.

Until now, millimeter wave technology from SIKORA was well-known for the measurement of larger pipes. To meet demands of tube manufacturers of smaller sizes, SIKORA has developed the CENTERWAVE 6000/250, which debuts at the K in Düsseldorf this year. The new model is designed for tube diameters from 32 to 250 mm (1.3 to 9.8"). Tubes with wall thicknesses from 1.6 mm (.06") can now be measured reliably. The measuring head automatically adjusts to the position of the tube, guaranteeing immediate centering.

Additionally, the CENTERWAVE 6000/1200, which has also recently premiered, is designed for larger diameter ranges from 250 to 1,200 mm (9.8 to 62.9"). Thanks to its slim and compact design, it can be easily integrated into the production line and is designed for large-diameter pipe manufacturers who produce pipes with diameters of up to 1,000 and 1,200 mm (39.7 and 47.2") in their lines. For the American market, the common 48" IPS and DIPS standard is also covered.

Like all CENTERWAVE devices, the two new models are equipped with a transceiver that continuously rotates 360 degrees around the product, and with its adaptation of the rotation speed to the line speed, it guarantees a gapless recording of the wall thickness both over the circumference of the pipe and in its longitudinal direction. The device is an intuitive "one-button operation" without any parameterization needed.

The CENTERWAVE calculates which wall thickness values are to be expected after the pipe has cooled down and with which presetting a 100 % sagging compensation is to be achieved.

### Dynamic Shrinkage Prediction

After the vacuum tank, a "Dynamic Shrinkage Prediction" is used to accurately predict the final wall thickness and diameter values to be expected after the pipe has cooled down at the end of the extrusion line. Manual input in case of changing production conditions is not necessary at any time due to this patented process.

### Dynamic Sagging Compensation

For a uniform wall thickness over the entire circumference of the pipe, it is necessary to fully compensate for the unavoidable sagging of the still flowable wall. The "Dynamic Sagging Compensation" is equipped with software that determines the proportion of still flowable material in the wall thickness and uses this to calculate a default value that is required for complete compensation of the sagging.

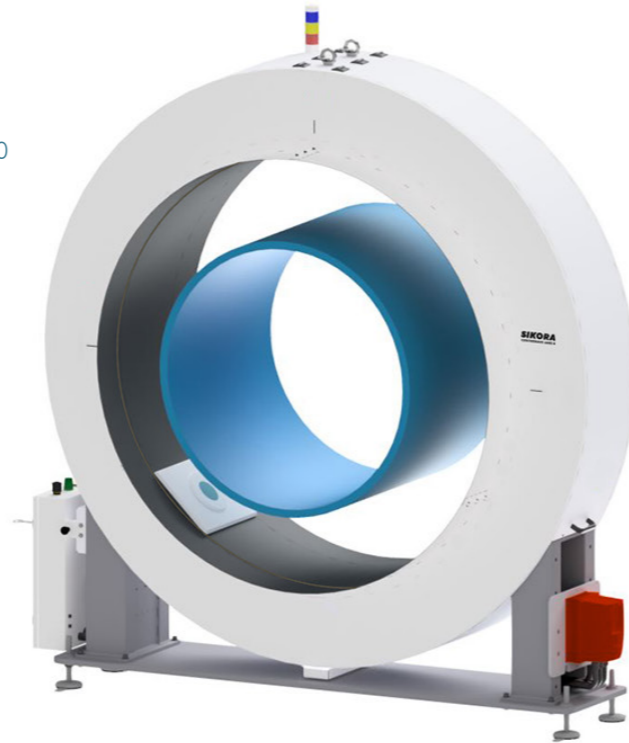
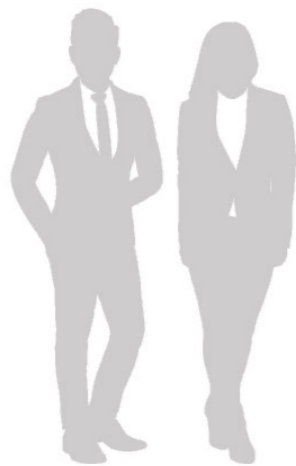
## The CENTERWAVE as Profit Maximizer

With our CENTERWAVE 6000 you can not only save material – the system is a true profit maximizer! By avoiding start-up scrap, valuable production time is saved and by reducing wall thickness oversize, the material saved helps maximize your profit through extra lengths produced.

For more information, click [here](#) or scan the QR code.



The new CENTERWAVE 6000 models compared in size



With the SIKORA CENTERWAVE 6000 models you save so much material that you produce every 16th pipe\* for free



\*Deviations possible according to production specifications.

# SAFE GAS TRANSPORT THROUGH CONTINUOUS QUALITY CONTROL

## SIKORA's X-RAY 6000 PRO reliably measures gas pipes during extrusion

Plastic gas pipes are now an integral part of our supply networks to provide natural gas to industries and private households. The requirements for manufacturing these pipes are high due to safety factors surrounding natural gas transportation. High quality pipe is required to deliver it reliably and safely. Therefore, manufacturers trust the SIKORA X-RAY system for quality control in their extrusion process.

The X-ray based X-RAY 6000 PRO from SIKORA is used for continuous measurement of the product dimensions of pipes during the extrusion process. Thus, it ensures that the required specifications are met and documented. Within fractions of a second, the operator receives important parameters such as diameter, wall thickness and ovality. They are displayed on the monitor of the processor system ECOCONTROL 6000, for a fast centering and control to nominal dimension. Start-up scrap is thus minimized.

Constant monitoring of the product ensures all minimum walls will be captured. With automatic control of the minimum wall thickness, the system ensures an in-spec product while maximizing material savings. Quality control by means of X-ray technology ensures the production of high quality gas pipes. The simultaneous reduction in material consumption significantly increases production efficiency.

Codes and standards precisely define the specifications of gas pipes. Permanent monitoring of diameter and wall thickness during extrusion is therefore essential. If the pipe wall is manufactured too thinly, pressure requirements on the pipe will not be met, which could lead to defects and, in the worst case, to severe accidents. A pipe wall that is produced too thick, in turn, leads to unnecessary additional material consumption and can also cause problems during the installation of the pipes.

*The X-RAY 6000 PRO is a real all-rounder: Quality control of gas pipes is only one area of application of the X-ray measuring system. Whether mono-layer products such as gas pipes or multi-layer products such as composite pipes, the X-RAY 6000 PRO is used for the measurement of a multitude of different pipe types and thus covers a wide product range in the industry.*

Our customer Teel Plastics relies on SIKORA's X-RAY 6000 PRO for quality control in its gas pipe extrusion line



# SIKORA PREMIUM EXPRESS SERVICE

## Delivery of spare and wear parts in record time

At SIKORA, the satisfaction of our customers is our top priority. Our devices continue to provide accurate measuring results even after many years. To keep it that way, we offer the SIKORA CARE PACKAGE. Maintenance and calibration according to international standards help to prevent downtimes and to maintain the quality assurance of your production.

As part of our maintenance programs, SIKORA also takes care of the professional replacement of wear and spare parts.

### Premium Express Service

On request, we also deliver spare and wear parts directly to our customers' facilities. And since we at SIKORA know how important quick assistance is, we offer the Premium Express Service.

Customers who need a spare or wear part quickly can request a corresponding quotation from their service contact. Within Europe, shipping is possible within 1-2 days after quotation approval.

We have many spare parts in our expanding inventory and can get them on their way to our customers within a few hours. Parts that need to be specially prepared for use in our complex measuring, control, inspection, sorting and analysis systems can be shipped within 24 hours after order confirmation.

We will be happy to meet your individual shipping needs.

If you are interested in our Premium Express Service, please contact your SIKORA service representative or contact us directly at [service@sikora.net](mailto:service@sikora.net) or +49 421 48900 50.



# 3 REASONS, WHY YOUR INVESTMENT PAYS OFF

Return on Investment (ROI) with SIKORA measuring and control technology

Profitability, sustainability and customer satisfaction are the cornerstones of a successful production. No matter how your operation is set up, with the SIKORA ROI Calculator, we can tell you today how you can save costs, valuable production time, CO<sub>2</sub> and secure the quality of your products. We can also tell you when your investment will turn into profit, thanks to SIKORA's innovative measuring and control solutions.

### 1. Profitability

Minimal information about your production parameter is sufficient for the **ROI calculator**, developed by SIKORA, to determine the return on investment of a CENTERWAVE 6000. The results are impressive! For a production of typical pipes with a **diameter of 315 mm (12.4")**, for example, the **ROI is 230 %**. This means that the investment pays for itself within four months. **Annual savings of around 250,000 Euros** by reducing safety margins and start-up scrap are possible – production in its most economical form.

### 2. Sustainability

In order to provide a future for future generations, measures are taken all over the world to **reduce CO<sub>2</sub> emissions**. Thanks to the use of the SIKORA CENTERWAVE 6000 many tons of CO<sub>2</sub> can be saved annually. With continuous production, in our example calculation, we save almost **600 tons (661.4 tn) of CO<sub>2</sub> per year** – production in its most sustainable form.



### 3. Customer satisfaction

The CENTERWAVE 6000 focuses on the assurance of your product quality. Without prior knowledge of the properties of the extruded material and its temperature distribution of the pipe wall, both the inner and outer dimensions and the wall thicknesses are measured without gaps over the entire circumference of the tube or pipe. Measurement results on **diameter, ovality, minimum wall thickness and inner profile (sagging)** are ready for display and control within milliseconds. **Complaints due to incorrect pipe dimensions are a thing of the past:** your customers receive only the best quality – production in its most customer-friendly form.



## RAFFLE

?	?	?	?	?



**SCAN ME**

### Wordle!

Five letters – six attempts.

Can you find the secret word? Simply scan the QR code or follow the link <https://lead.me/sikora-wordle-en> and start playing.

To participate, email your solution to us by Nov 31, 2022: [extra@sikora.net](mailto:extra@sikora.net)

You can win one of three Toshiba Canvio Ready hard drives with 1 TB of storage.



Your contact details will not be passed on to third parties. Each correct answer takes part in the raffle. SIKORA employees and their relatives are excluded from participation. Each player can only participate once. We value the first email, all subsequent emails will be considered invalid. The legal process is excluded.

GOOD LUCK!

## NEXT EVENTS



• K | Oct 19-26, 2022 | Düsseldorf, Germany



• Compounding World Expo | Nov 09-10, 2022 | Cleveland, OH, USA



• Extrusion 2022 Conference | Dec 06-08, 2022 | Charlotte, N. C., USA

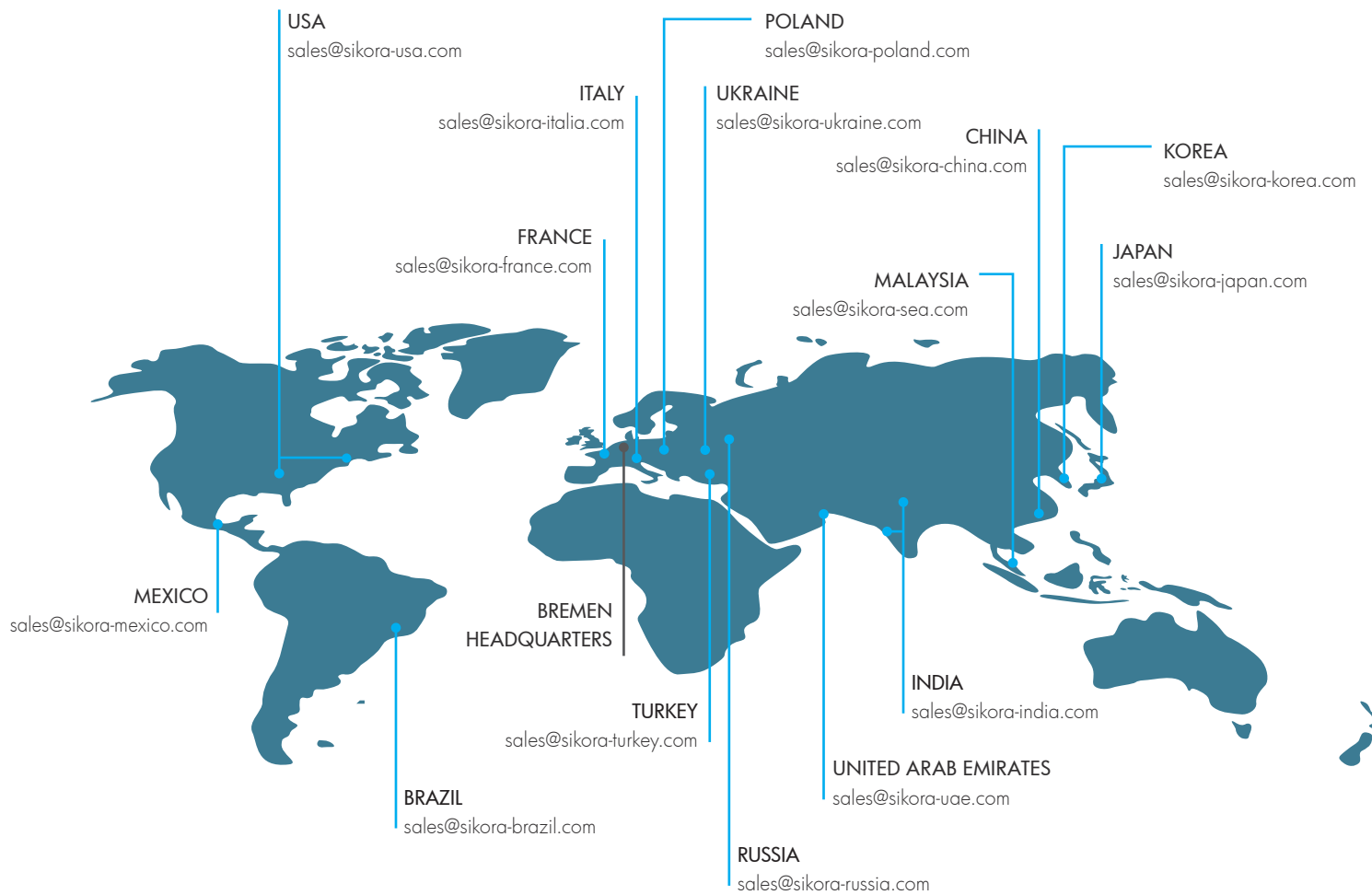
### SUSTAINABILITY AT SIKORA

Our environment is important to you, but you do not want to do without the informative SIKORA EXTRA articles? Register today at [extra@sikora.net](mailto:extra@sikora.net) and receive the SIKORA magazine conveniently via email instead of printed material.

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Technology To Perfection

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