

SIKORAEXTRA

Your magazine for Hose & Tube | Sheets

Special topic:

Success Story

04

Gerodur MPM Kunststoffverarbeitung
GmbH & Co. KG and SIKORA

SIKORA new building completed

07

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 potential regarding measurement technology and thus, reach maximum productivity for your applications. 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 hose and tube industry. Find out more in the article on page 6.

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



Harry Prunk
Executive Board SIKORA AG



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

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PERFORMANCE SHOWS IN MANY SEGMENTS!

— “WHEN PRODUCING A PERFECT PIPE NOT ONLY OUR CUSTOMERS WILL BE SATISFIED, BUT WE WILL BE TOO”

Gerodur counts on inline millimeter wave technology from SIKORA for the measurement of plastic pipes

Gerodur MPM Kunststoffverarbeitung GmbH & Co KG, a subsidiary of HakaGerodur AG (Gossau/Switzerland), is a specialist in producing plastic products for piping systems and heating & sanitary. Since 2017, the company located in Neustadt/Saxony, Germany, has been using millimeter wave technology from SIKORA AG for the measurement of the wall thickness, diameter and inner profile (sagging) of plastic pipes during the extrusion process. The cooperation between both companies is based on a future and also practice oriented solution for an automatic inline quality control in order to ensure the highest pipe quality and optimal processes.

Wherever reliability, wear resistance and corrosion resistance are required, plastic pipes are the best choice. Whether as piping systems for transporting water, sewage and gas or for transferring drinking water or for heating and sanitary facilities, quality requirements of the pipes are very high and determined by standards. Since its foundation 26 years ago, Gerodur has been producing first-class plastic pipes with the focus on the highest product quality, optimal processes and profitability. For the internationally operating manufacturer, the application of innovative measuring and control technology in extrusion lines is a matter of course. The first contact with SIKORA, manufacturer of measuring and control devices from Bremen, Germany, was made several years ago. At that time, Gerodur

was looking for measuring technology for smaller product dimensions in the area of heating and sanitary facilities and found the solution in X-ray technology. For two years now, the company has also been using a new technology from SIKORA that is based on millimeter waves and which is applied during the extrusion of large plastic pipes and thus, follows a future-oriented approach. "There are several methods for quality control on the market. The newly developed millimeter wave technology convinced us with its smart measurement principal", says Andre Richter, Team Leader of piping systems division at Gerodur. "Especially for the measurement of large pipes in the dimension range of 250 to 630 mm (10 to 25") and wall thicknesses of up to 60 mm (2.3"), we see significant benefits", he continues.



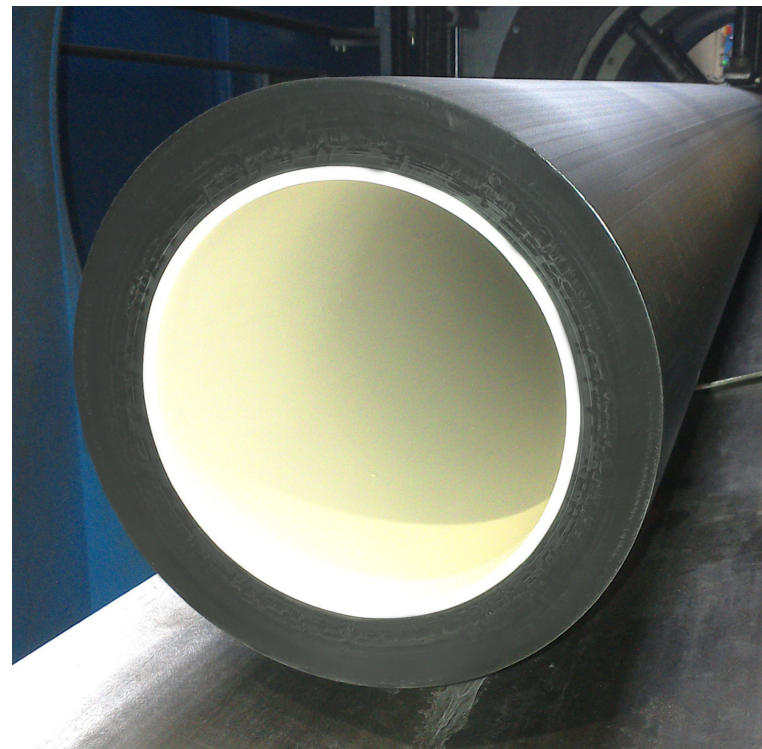
At Gerodur, SIKORA's millimeter wave technology measures inline the diameter, ovality, wall thickness and inner profile (sagging) of plastic pipes; from left: Peter Hügen, Area Sales Manager at SIKORA, and Andre Richter, Team Leader of piping systems division at Gerodur MPM Kunststoffverarbeitung

In the line, the millimeter wave system CENTERWAVE 6000 is installed directly after the first vacuum tank. The system measures the diameter, ovality, wall thickness and the inner profile (sagging) in real-time over 360 degrees of the pipe circumference, and thus, enables a fast centering of the extrusion tools. An alternative measuring method on the market is ultra sound. This technology also measures the pipe diameters. However, due to its temperature dependency, it can only be applied later in the production process. "It is our goal to receive reliable and accurate information about the pipe dimensions as early in the process as possible in order to take actions if necessary. Thereby, an early measurement of the wall thickness is of significant importance considering that pipes with large diameters and large wall thicknesses are being produced at a line speed of 0.5 meters (20") per minute", adds Richter.

An optimized start-up process – meaning time saving and manufacturing at nominal dimensions while, simultaneously, avoiding waste – leads to process reliability and an efficient production, which is often crucial with regard to competition. Gerodur understands its business as a continuous improvement process. "We constantly review our processes and also break new grounds if this enables us to further increase customer satisfaction", explains Axel Mantey, Managing Director of Technology at Gerodur. "In addition to quality, the highest delivery reliability and flexibility concerning customer requirements are important aspects." Thus, the company has launched two innovative products, which opened up new application areas.

Gerodur also places high demands on its suppliers. Process technology, which includes measuring and control technology, is a crucial component within the value-added chain. The data supplied by the measuring technology is the basis for process improvements and has an impact on business correlations within the company. "We are in close exchange with SIKORA and develop further together. For example, we are discussing ideas to adapt the system to our line requirements even after purchasing the device. This applies, for instance, to customized software modifications or individual visualizations of measurement data to support the operator", explains Mantey. The results are optimal processes and high productivity.

At Gerodur, the production of high-quality products and process optimization will continue to be at the top of the agenda in the future. "Besides technical innovation, industry 4.0 and digitalization will be long-term challenges", says Mantey. In extrusion lines, various machines, devices and systems are integrated that supply different data. A particular challenge is to evaluate and process these amounts of data that have to be intelligently reduced to be perceivable for humans. "Thus, the cooperation with machine manufacturers and manufacturers of measuring devices, like SIKORA, will play a key role", says Mantey. SIKORA's millimeter wave measuring system is well equipped with regard to industry 4.0 and already provides interfaces such as OPC UA and industrial fieldbus connections to be networked with the production plant. Axel Mantey is convinced that the combination of future-oriented technology with proven functionality and reliable service makes the cooperation with SIKORA so valuable. "If we achieve more process reliability by using measuring technology and produce a perfect pipe at the end of the production line, not only our customers will be satisfied, but we will be too."



Gerodur produces, amongst others, piping systems with the highest precision

UTILIZING MEASURING TECHNIQUE TO ITS FULL POTENTIAL

Combining measuring device and processor system – maximum performance guaranteed

With the X-ray measuring system X-RAY 6000 PRO, quality control of hoses and tubes can be done quickly and precisely, directly in the extrusion line. Within milliseconds, an X-ray image of the product 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. In 2004, the technology was transferred to the hose and tube sector. 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 as 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 hose or pipe. 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 values.

Furthermore, the processor system is used for an automatic control of the line speed, respectively extruder rpm. Hence, it guarantees to comply with given specifications as well as the highest performance for a maximum of process optimization and productivity.



X-RAY 6000 PRO with standard display of eight values at ECOCONTROL 6000 processor system

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.

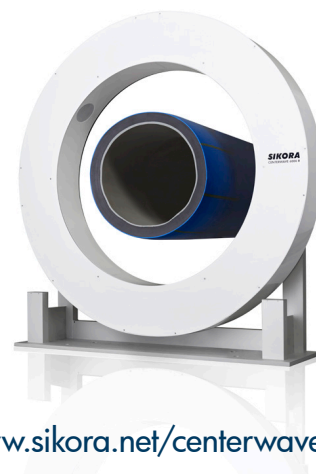


Alternative visualization:
Display of twelve measuring values at ECOCONTROL 6000

Quality in its innovative form.

With passion, we develop future-oriented measuring and control devices for quality assurance of hoses and tubes, such as the **CENTERWAVE 6000**. A non-contact system for the measurement of diameter, ovality, wall thickness and inner profile (sagging) of large plastic pipes with a diameter from 90 to 3,200 mm (3.5 to 126.0"). An innovative solution based on millimeter wave technology that increases product quality and ensures significant material and cost savings during extrusion.

- Rotating measurement around 360° of the circumference
- Easy operation without presetting product parameters, reliable without calibration
- Independent from material and temperature, no coupling media necessary
- Measurement data available in real time
- Hot and cold measurement



www.sikora.net/centerwave6000

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 optimizations. Therefore, you and your employees can be sure to *always get the maximum out of your SIKORA device* and, simultaneously, are able to *examine, analyze and optimize your production processes in a future-oriented way*.

"Learning is like rowing against the current; as soon as you stop, you drift backwards!" – Benjamin Britten

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 service@sikora.net 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 (8,372 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.

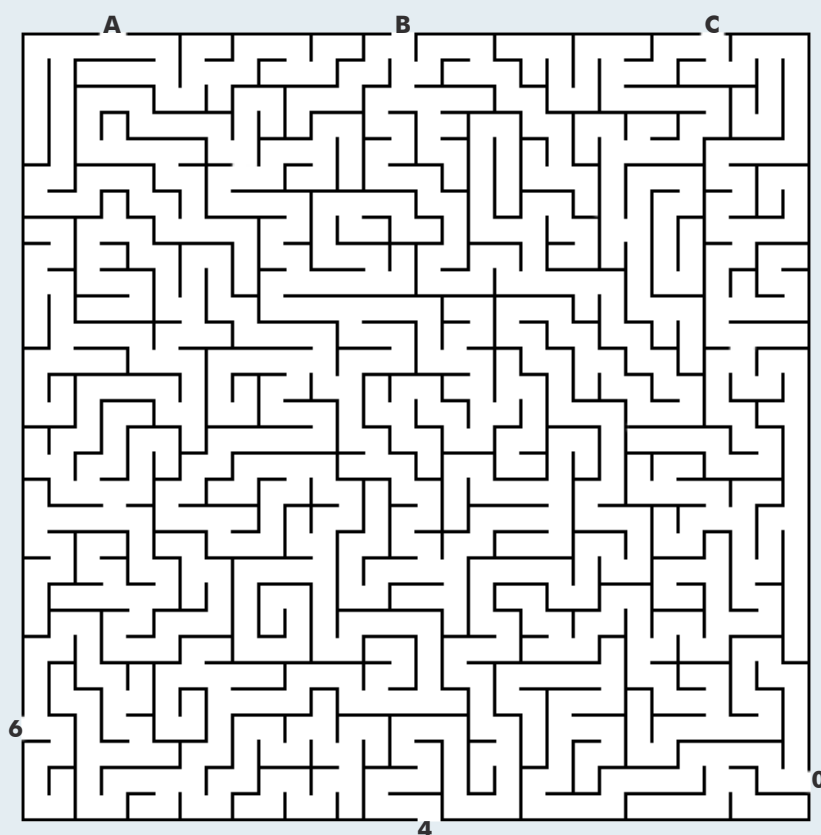
The four storey building accommodates, in addition to production, logistics as well as research and development departments. An extended communication area in the upper stacked storey with its flexible meeting and creativity rooms builds a bridge between technology and communication.

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.



Copyright: Gruppe GME Architekten BDA
Photo: Caspar Sessler

RAFFLE



SIKORA labyrinth

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

A	B	C
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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 4/2018. Solution: International

- Davide Zorzi
- Joan Totusaus
- Birgit Rück

NEXT EVENTS

 • Chinaplas | May 21-24, 2019 | Guangzhou, China

 • Rubber Expo | Oct 8-10, 2019 | Cleveland, OH, USA

 • K | Oct 16-23, 2019 | Düsseldorf, Germany

Sustainability at SIKORA

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