

# Krones AG optimizes maintenance and communication with AR technology by TeamViewer



**Manufacturer for bottling plants relies on augmented reality for the maintenance of its machines. Smart glasses support onboarding and remote training.**

Krones AG offers machines, lines, and complete solutions for the beverage and liquid food industry - process technology, filling technology, packaging machines, but also IT solutions.

Filling and packaging food is one of the last steps in the food value chain. Krones AG's food packaging lines are highly complex, interlinked production lines. The individual machines consist of a large number of mechanical and electronic components, which can lead to increased susceptibility to faults. Although the lines are designed so that filling, for example, is only stopped for service and cleaning intervals, operating errors can bring the entire production to a halt. Downtimes are to be avoided, however, not only for economic reasons, but especially because of food as a packaged good.

## Challenge

Krones intended to further simplify access to technical support worldwide for customers, suppliers and the company's own employees, aiming to further optimize the support process and efficiency.

- ➔ **When problems arise, customers expect immediate, efficient support.**
- ➔ **Access to support for customers and support staff had room for improvement.**
- ➔ **Plant downtimes are to be avoided not only for economic reasons, but in particular because of food as a packaged good.**

## TeamViewer Solution

Ease of use and convenience together with an excellent ROI were the deciding factors for Krones to modernize Argos with TeamViewer Assist AR. The solution is now deployed across the company and is a daily tool for the approximately 200 support staff.



## Results

If support is needed, Krones experts connect via TeamViewer using video, remotely assess the situation of the system, and thus help solve the problem. With the increasing complexity of lines and machines, this saves an enormous amount of time for both sides.

- ➔ **Troubleshooting and diagnostics are carried out much faster and more precisely**
- ➔ **Improvement of the first-time fix rate (FTFR)**
- ➔ **Customer training and ongoing education of the company's own employees can be designed and carried out efficiently**

## Initial Situation

With a workforce of 16,700 and 100+ subsidiaries worldwide, Krones has evolved into a full-service partner for its customers in a growing market. To secure its competitiveness and future business growth, the German plant manufacturer focuses on a broad range of customer services and also offers solutions for more efficient operations at its customers' sites, such as in-house logistics.

Krones' ambition is to provide cutting-edge technological products and services. As an innovation driver, the company invests significantly in research and development to address global challenges, such as sustainable concepts for plastic packaging. In this context, the service business offering innovative products has increasingly become a mainstay of the growth strategy, especially through the use of state-of-the-art technologies such as Deep Learning for preventive and condition-based maintenance of lines. Industry 4.0 solutions and a high level of digitization in processes and services are playing an increasingly important role in the mechanical engineering sector as well.

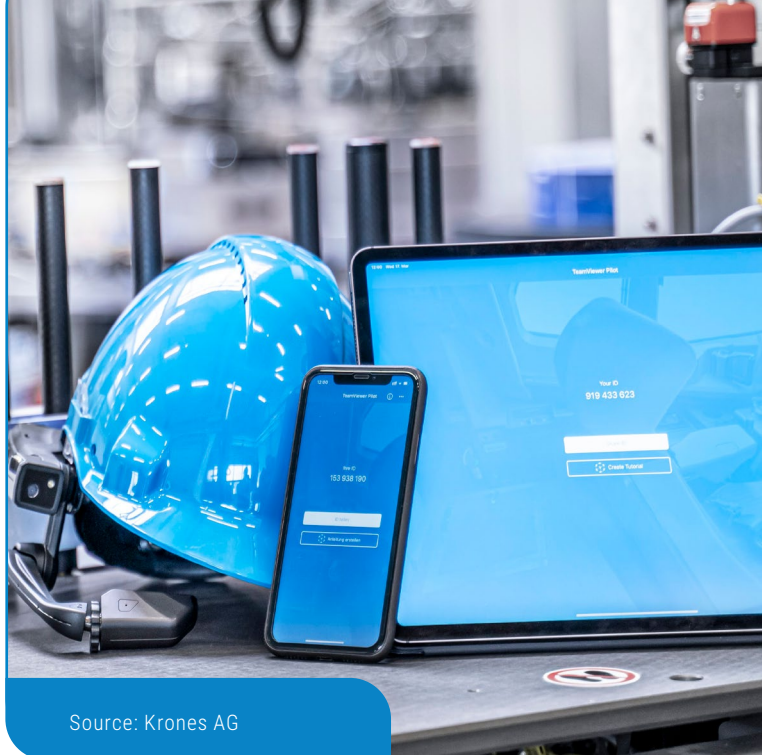
"In the event of a customer support case, we aim to respond as immediately as possible," emphasizes Sebastian Oudes, Head of Corporate Customer Operations. In addition to fast response times, customer proximity and the customer experience are top priorities on the digital agenda. Krones wants to establish close ties with its customers and inspire them with digital service. One of the ways the company achieves this is by using augmented reality (AR) technologies. After gaining initial experience by implementing an AR solution in 2018, which was presented as a separate service under the name Argos, the company decided on a new AR system as the basic technology for Argos. Access to support was to be further simplified worldwide for customers, suppliers and the company's own employees, with the aim of further optimizing the support process and efficiency.

## Remote Support - As Easy As A Phone Call

A total of 15 solutions from different vendors were evaluated, before the choice fell on TeamViewer Assist AR. Ease of use and convenience together with an excellent ROI were the decisive factors for Krones to modernize Argos with TeamViewer Assist AR. Today, the solution is used throughout the company and is a daily tool for the approximately 200 support staff.

"We have been using TeamViewer Assist AR since the end of 2020. Support now works as easily as a phone call," explains Sebastian Oudes. "TeamViewer Assist AR clearly represents the most user-friendly solution for us at the moment and also offered excellent value for money for us."

When the restrictions came with the Covid-19 crisis, Krones support was prepared for this situation with the AR-based solution. This also benefited the company during factory acceptance tests of its lines. These are typically carried out by the customer directly at the headquarters in Neutraubling, Bavaria, or at the other German production sites, where 90 percent of the lines are built for export.



Source: Krones AG



Michael Schuster, IT Consultant  
Digital Services at Krones

**TeamViewer Assist AR was a real gamechanger. Thanks to the AR solution, we were able to continue supporting customers with technical challenges and maintain our service offering despite the Covid 19 crisis.**

## Reliability Throughout the Value Chain

So when the acceptance of machines by customers was no longer possible from one day to the next due to contact restrictions, Krones moved this service into the virtual world without further ado and carried out its Factory Acceptance Tests (FAT) as a live video stream. Subsequently, the lines can be delivered and commissioned on schedule. Also, later on, when troubleshooting or readjusting machines, the support staff can help a customer directly thanks to augmented reality and the "look over the shoulder" via live video.

"TeamViewer Assist AR was a real gamechanger," recalls Michael Schuster, Technical Support Specialist and IT Consultant at Krones. "Thanks to the AR solution, we were able to continue supporting customers on technical challenges and maintain and even expand our service offering, despite the Covid-19 crisis."

## Steady Improvement of Response Times

With TeamViewer Assist AR, troubleshooting and diagnostics are carried out significantly faster and more precisely. This includes, for example, the typical case of incorrect settings or an active safety lever blocking the proper operation of a line. If support is needed, Krones experts connect remotely via TeamViewer video, examine the situation on the line, and help solve the problem. With the increasing complexity of lines and machines, this saves an enormous amount of time for both sides. Machine downtimes are minimized, customer satisfaction is increased, and customer loyalty is strengthened.

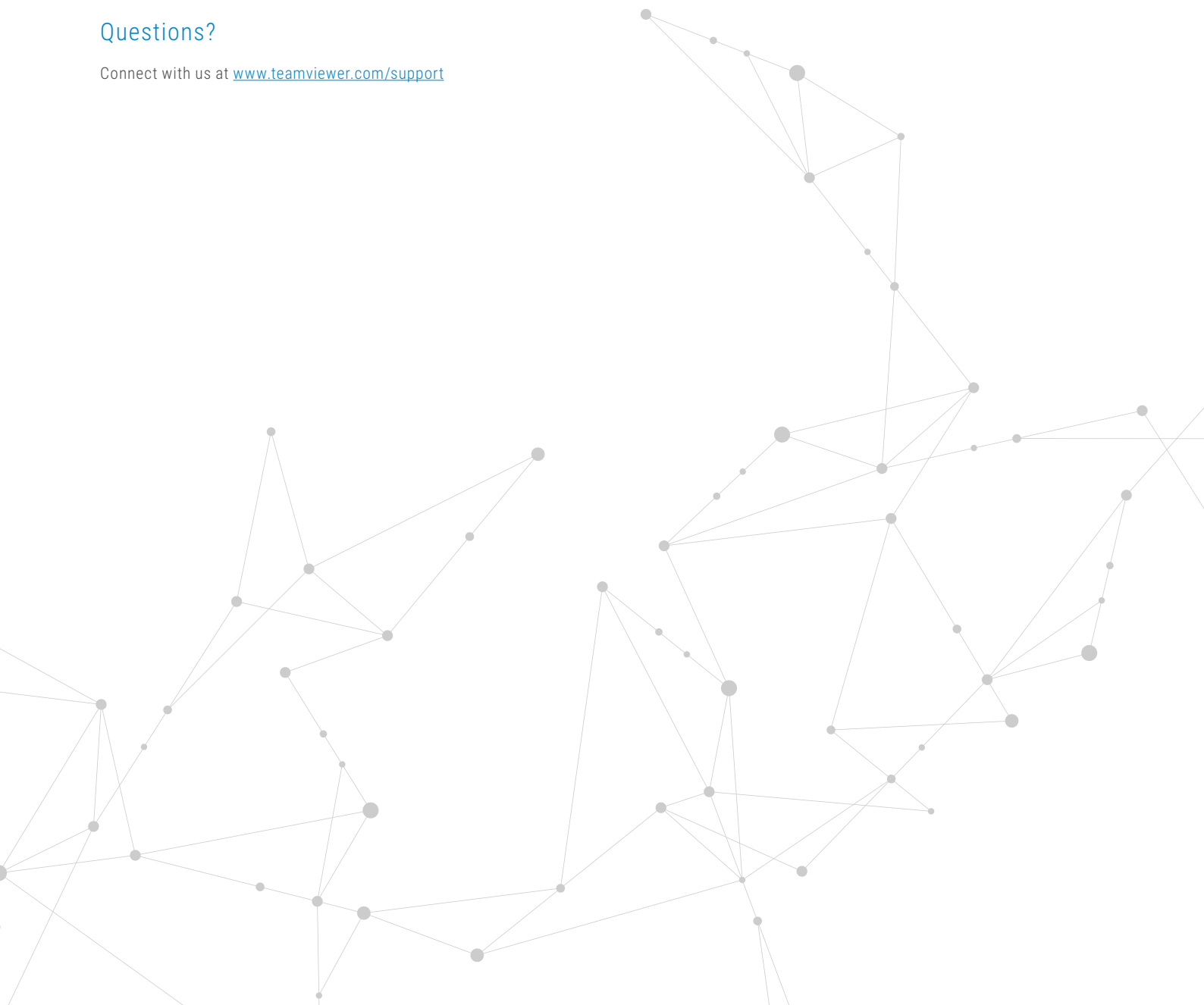
Thanks to lean management and the efficient design of service workflows, for example, with the help of TeamViewer Assist AR, Krones AG has further reduced waiting times for customers, as well as reduced costs for both sides. In addition, this has led to shorter throughput times, optimized processes, and a continuous improvement in service response speed. As a result, the overall first-time fix rate (FTFR) was further increased.

## Faster Knowledge Transfer in Onboarding Processes and Virtual Customer Trainings

Krones applied the positive effect of AR technology in other business areas as well, for example in employee trainings at its international sites, or, in the numerous virtual customer trainings offered through the Krones Academy. For these, using smart glasses, the trainer stands in front of a training machine, shows individual steps and actions, and can respond directly to questions. This way, customers are able to further their knowledge and increase the performance of their production lines without the need for travel or classroom training – another step towards customer service excellence at Krones AG.

## Questions?

Connect with us at [www.teamviewer.com/support](https://www.teamviewer.com/support)



## About Krones

Krones AG is a German publicly listed manufacturer of lines and machines for the production, filling and packaging of beverages and liquid foods in PET, glass bottles, and beverage cans based in Neutraubling, Bavaria. With its products, the company covers the complete production, filling, and packaging process as well as the logistics flow in manufacturing operations, and also integrates corresponding IT systems. [www.krones.com](http://www.krones.com).

## About TeamViewer

TeamViewer is a leading global technology company that provides a connectivity platform to remotely access, control, manage, monitor, and repair devices of any kind – from laptops and mobile phones to industrial machines and robots. It enables companies of all sizes and from all industries to digitalize their business-critical processes through seamless connectivity. TeamViewer proactively shapes digital transformation and continuously innovates in the fields of Augmented Reality, Internet of Things or Artificial Intelligence. The company is listed at Frankfurt Stock Exchange and belongs to MDAX.

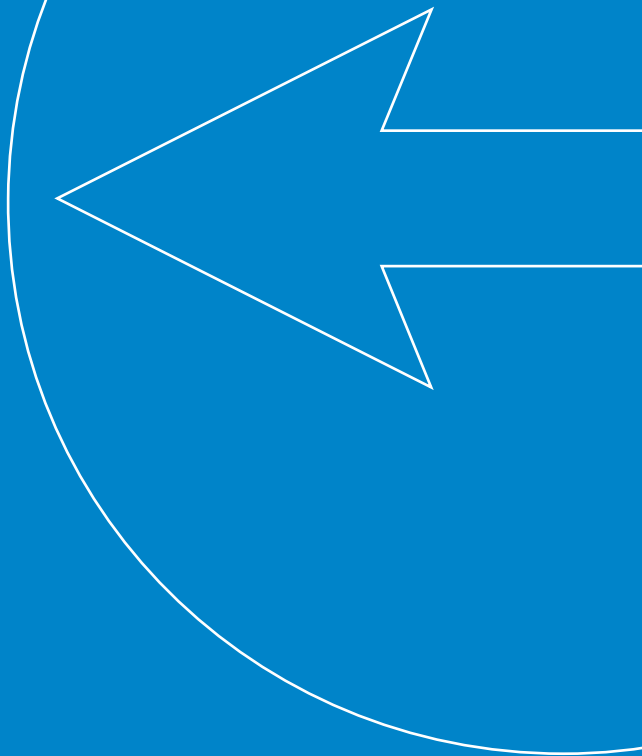
## Contact

TeamViewer Germany GmbH  
Bahnhofsplatz 2  
73033 Göppingen  
Germany

Europe: +49 (0) 7161 60692 50  
[www.teamviewer.com/en/customer-support](http://www.teamviewer.com/en/customer-support)

TeamViewer US Inc.  
5741 Rio Vista Dr  
Clearwater, FL 33760  
USA

Americas: 1 800 638 0253 (Toll-Free)  
[www.teamviewer.com/en-us/support](http://www.teamviewer.com/en-us/support)



# Let's connect.



[www.teamviewer.com](http://www.teamviewer.com)