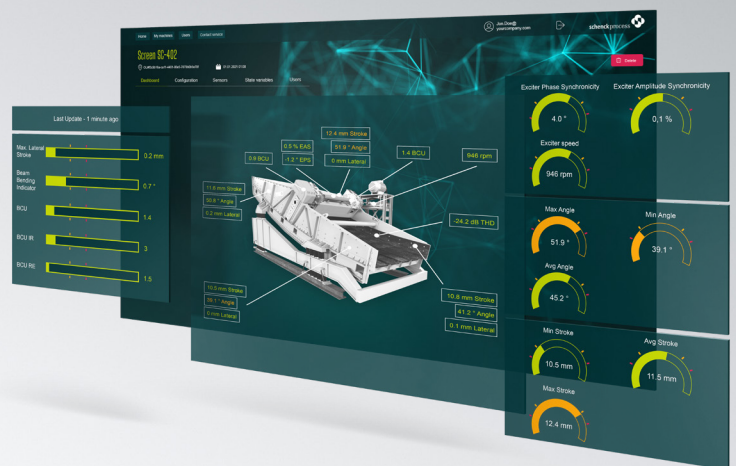


# CONiQ<sup>®</sup> Cloud: the intelligent connection.

**Optimizing machine  
maintenance and  
process performance**



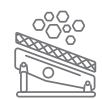


# Turn information into invaluable insights.

The **CONIQ**® Cloud is the IoT backbone to make your machines and processes smarter. It is designed for you to access data from your assets and offers various benefits from simple monitoring and transparency to ad-hoc service expert support on immediate and historic machine issues.

In addition, the **CONIQ**® Cloud also includes easy-to-use dashboards with KPI information directly on your mobile device, so you have all relevant information with you – any time, any place.

Thanks to the global setup, your need for support on data interpretation, recommendation for action and constant improvement is just one click away. Thus, you can get complementary support on all level around the data of your assets to support your operation and maintenance team.



**Maximize  
Performance**



**Minimize  
Maintenance Costs**



**Maximize  
Uptime**



**Protect your most  
valuable assets**



# One step ahead with **CONiQ**<sup>®</sup> Cloud

The **CONiQ**<sup>®</sup> Cloud is a cloud-based IoT solution designed to access data from machine assets and processes. The cloud solution builds the foundation for all digital services of Schenck Process and offers operators powerful tools for data-driven maintenance and performance optimization. An integrated knowledge base further empowers experts to monitor OEM equipment remotely in real-time and to respond timely in case of a process-critical event.

The **CONiQ**<sup>®</sup> Cloud turns data from various data sources such as **CONiQ**<sup>®</sup> Monitor into valuable information which the customer can use to:

- Find problems before they become a failure
- Detect issues early to gain more reaction time
- Avoid unplanned downtime
- Plan maintenance effectively and in advance
- Minimize maintenance costs
- Ensure an efficient and effective machine operation
- Minimize waste of resources



Our **CONiQ**<sup>®</sup> solutions are constantly evolving and cover a wide and growing range of Digital Monitoring tools and services. Stay informed and visit our website and the relevant product documentation.

[schenckprocess.com](https://www.schenckprocess.com)

# Introducing CONiQ® Monitor

CONiQ® Monitor is the new IoT edge system and add-on hardware for Schenck Process equipment. The system contains a variety of sensors, performs edge data processing and deals as a gateway into the CONiQ® Cloud and customer control systems.

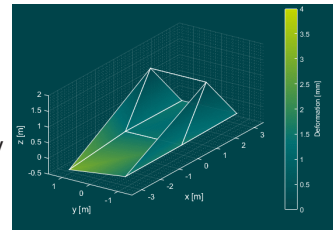
CONiQ® Monitor enables a high level of flexibility in relation to sensor connection, on-site analytics and communication interfaces. With this flexibility, CONiQ® Monitor can be adapted to any kind of process equipment and existing CONiQ® Monitor system can be adapted over time to emerging needs and ideas. The system can even be updated while being installed on-site and while the equipment is in operation.

To ensure a high-end level of usability, CONiQ® Monitor is designed to be a plug & play system. Once the hardware is supplied with power it automatically receives SW updates from the CONiQ® Cloud and switches to 24/7 monitoring providing real-time data for customer control systems and the CONiQ® Cloud.

As first application, Condition and Process Monitoring of vibrating machines is implemented on the CONiQ® Cloud platform. For vibrating screens and feeders, CONiQ® Monitor includes numerous wireless and three-dimensional motion sensors which are distributed to critical positions around the machine. As a special feature these motion sensors are fully synchronized despite being wireless.

## SPECIAL FEATURE FOR VIBRATING MACHINES: 3D WIREFRAME VIDEO.

Based on synchronized motion sensors, CONiQ® Cloud is able to generate a 3D wireframe video representation of the machine motion. This tool features slow-motion and amplification of non-ideal motion patterns. Thereby even non-experts get a quick & easy understanding of the actual machine performance.



### WHAT ARE KEY BENEFITS OF THE CONiQ® CLOUD

- Enabler for next-level Digital Services
- Smart analytics based on Schenck Process domain expertise
- Adaptive solution even for special process equipment
- Powerful and growing platform to share apps and feature for all domains
- Open architecture to connect CONiQ® Cloud with ambient IoT systems



## Digital Services

Developed by SPG and selected partners

## CONiQ® Cloud

Providing secure data storage and analytics, billing & metering, ...

## CONiQ® Monitor

Secure plug&play connection of process relevant products – using wireless sensors and standard interfaces



Condition monitoring



Intelligent process control



Spare parts Management



Remote service



Data-Driven Maintenance



Local decision support



Conveying



Milling



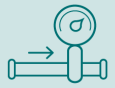
Weighing



Vibrating screen



Feeding



In-process Weighing

# Security is a top priority – both on site and digitally

CONiQ® Cloud acts like a virtual bridge between our machines and our digital services.

Thanks to a secure plug&play connection between process relevant products (using wireless sensors) and standard interfaces, data is encrypted and transmitted to CONiQ® Cloud in accordance with latest security standards.

In a next step, CONiQ® Cloud enables secure data storage and analytics, billing and metering.

## NEXT LEVEL DIGITAL SERVICE

Our customers' valuable data from the CONiQ® Cloud serves as the basis for our digital services, for example remote service, intelligent process control and spare parts management.

Intelligent algorithms enable even faster and more accurate services going forward and thus attractive offers for the future success of you, our customers.

# Smart analytics provided by the OEM experts.

Based on our knowledge about our machines and customer processes, we benefit from the insights we have on normal operation. With the long tradition on machine and process testing, we can predict with high precision how customer machines will behave in nearly any given operation regime and environmental condition.

The service comprises a data driven model, predicting normal behaviour based on historical data and current machine and process operation. In contrast to the normal condition monitoring against given absolute alarm limits, our approach focuses on the difference between measured and predicted value – the so-called residual value. This value reflects the degree of deviation from normal operation and is more sensitive to any kind of changes. Combining latest machine learning technologies with our machine and process knowledge, we are able to make deeper use of the information hidden in traditional machine and process measurements. Finally we are able to identify deviation from normal machine and process operation long before traditional alarm limits go off.

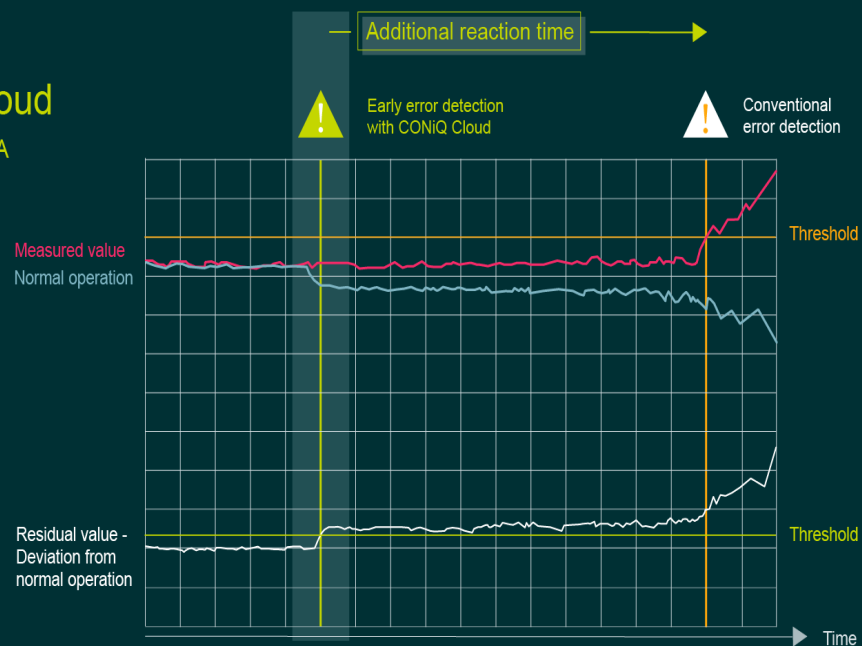
Our latest digital services do not only secure safe and efficient operation but enlarge the reaction time for our customers to think about appropriate measure - long before failures become a problem.”

## Deviation from normal operation - provides time

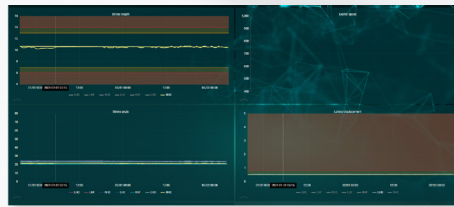
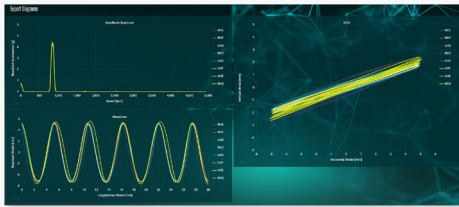
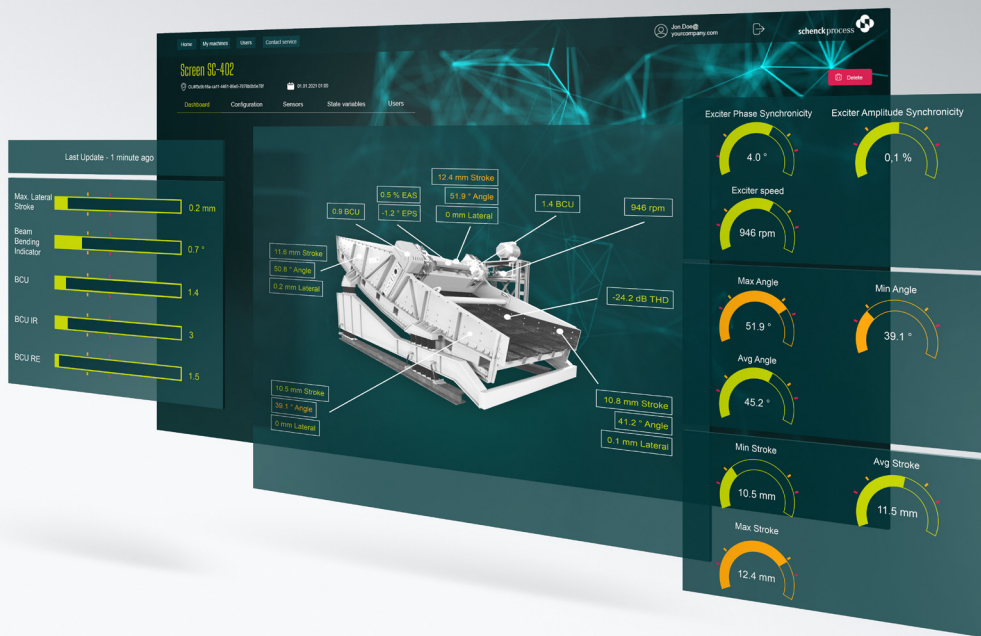


Win reaction time through early fault detection:

**CONiQ® Cloud**  
iQ YOUR DATA







- » Easy and quick access to all relevant machine information
- » Domain specific expert graphs and illustrations
- » Threshold illustration in trend diagrams
- » Customizable E-Mail alerts
- » Privacy and access protection
- » Responsive Webdesign
- » Auto-adapting time zone



# Performance at a glance The CONiQ<sup>®</sup> Cloud Dashboard.

The Dashboard enables easy and quick access to all relevant machine KPIs – accessible from any location and any device with an internet connection.

The backend architecture of **CONiQ<sup>®</sup>** Cloud ensures, that all users can work with their private data, while being protected from unauthorized access.

A full responsive web design enables all panels to adapt to screen size and resolution as well as smooth interaction (e. g. zoom) with both mouse and touch. The time zone will automatically adapt to the client system.

A high usability requires a quick assessment of whether a machine is operating within or outside its tolerance bands. That's why all information is translated into easy to understand graphical illustration of thresholds in trend diagrams.

In addition, a machine-learning based anomaly detector highlights deviation from normal signal patterns. If desired email alerts can be activated. As soon as an anomaly is detected, the system sends a warning mail with condensed relevant information to operation and maintenance staff.



# Get in touch with us today.

By combining a state-of-the-art cloud service with our experience and technical know-how, Schenck Process will help you to maintain long-lasting performance of your machinery and to resolve any issues identified. Our refurbishment service for screens, exciters and other vibrating equipment completes comprehensive offering that provides you with total peace of mind.

Get in touch with your Schenck Process representative for advice on condition monitoring, fault resolution and refurbishment.

Visit [Schenck Process NEXT](#) to learn more about our innovative products and join us on our digital journey.

# Connect!

schenckprocess 

Schenck Process Australia Pty Ltd  
Ground Floor, 65 Epping Road  
North Ryde NSW 2113, Australia  
T +61 (0) 2 98 86 68 00  
F +61 (0) 2 98 78 44 00  
[www.schenckprocess.com.au](http://www.schenckprocess.com.au)

Schenck Process Europe GmbH  
Pallaswiesenstr. 100  
64293 Darmstadt, Germany  
T +49 61 51-15 31 0  
[sales@schenckprocess.com](mailto:sales@schenckprocess.com)  
[www.schenckprocess.com](http://www.schenckprocess.com)

we make processes work