

Digital enablers at Sulzer – smart and connected equipment

Sulzer uses cloud platforms, digital connectivity and state-of-the-art mesh sensor technology to create added value to the customers.

Sulzer is developing and launching a series of digital solutions to support the core business model of selling new equipment, services and retrofits. The company uses digital tools to turn its products into smart devices, allowing customers to have valuable insights into the equipment data.

As digital sensors are becoming cheaper and more equipment is connected to the Internet (Internet of Things, IoT), there is an enormous potential to convert data from the devices into actionable business insights. This can be translated into optimized predictive maintenance and maximized uptime of the process in question.



Fig 1. Sulzer Sense installation at a customer site.

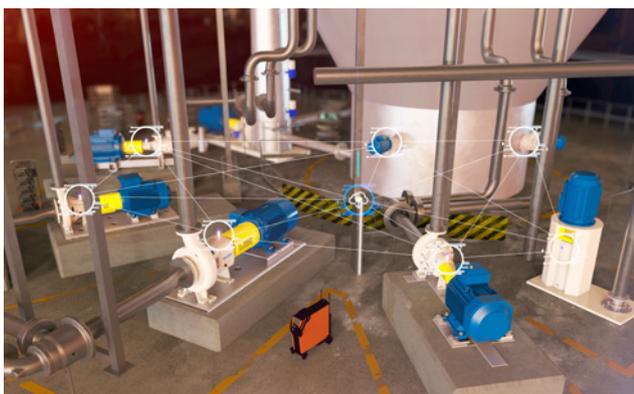


Fig 2. Wireless sensors attached to the equipment measure temperature and vibration in three axis and send the data into the cloud service via a gateway.

Today, the technology involved is becoming more affordable. It is easy and cost-efficient to deploy for new equipment or to retrofit in existing installations. This is particularly attractive in general industry, such as pulp and paper mills as well as the sugar, food, and fertilizer industries, where configured pumps have traditionally not been equipped with such options.

Sulzer Sense for wireless condition monitoring

Sulzer recently took the next step in digitalization by launching a wireless IoT condition monitoring system, Sulzer Sense. The solution includes wireless sensors that can be attached to a pump, agitator, motor or any rotating equipment – regardless of the type or brand, and in all industries. The sensors measure temperature and vibration and send the data to the cloud. This means that the operating status of the equipment can be remotely monitored 24 hours a day, seven days a week through Sulzer's online service. No manual measurement is needed.

Sulzer's online service is a cloud-based platform. It is easy to use and offers various value-adding services. The customers have secure access to the latest equipment data and related services, as well as technical product documentation and drawings.

With the service, you can track the condition of your product, view the equipment trend data, identify spare parts, check spare parts availability, place an order or view your order status. Sulzer's online service helps you to increase productivity, efficiency and cost savings by automating information sharing processes.

Wireless IoT condition monitoring saves time and money – and is safe

Sulzer Sense devices are battery powered and they operate in a wireless mesh network. The cloud-based solution is secure, and no software installation is required. Also, the wireless sensors and the gateway are easy to install and use – just plug and play. [Watch the installation video.](#)

Continuous condition monitoring enables the identification of possible problems in the process. Manual measurement on the site is not needed. This makes monitoring safe because the maintenance personnel do not have to access installation areas that might include a safety risk. Instead, they can allocate their time to more productive tasks.

The system is convenient because the measurement values and trends of the equipment are available anywhere and anytime in Sulzer's online service via laptop, mobile phone or tablet. If the set temperature or vibration limits are exceeded, the operator sees an alert in the cloud service. Sulzer's goal is to deliver its new process equipment with the integrated sensor so that the customers can benefit from the new technology.

Sulzer Sense has been running at customer sites for one year now. It helps the operators identify process problems by just measuring vibration and temperatures. By combining measurement data from Sulzer Sense with other existing data, our customers have been able to improve their processes.

Read more about how Sulzer turns pumps into smart devices and watch the video showing the wireless condition monitoring solution [sulzer.com/sulzer_sense](https://www.sulzer.com/sulzer_sense).

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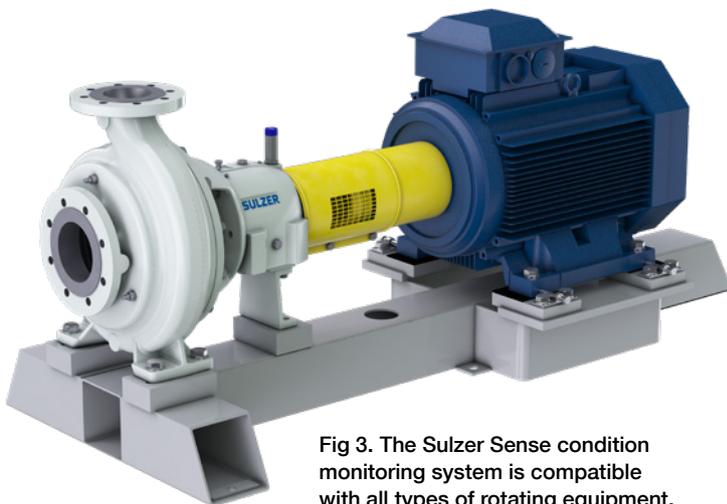


Fig 3. The Sulzer Sense condition monitoring system is compatible with all types of rotating equipment.



Fig 4. Sulzer Sense wireless IoT condition monitoring sensor.