

sonic**clean** – cleaning sensors in liquids

# ultrasonic cleaning system for contaminated probes



## Your advantages using our technology:

- Save electricity costs up to 10%
- Amortization within 2.5 years
- Relieve employees – Increase efficiency
- compatible with various probe types



# Clean probes – accurate measurements!

sonic**clean** prevents contamination of your measuring probes continuously. Thus ensures accurate measurements directly in the process.

## For clean probes in wastewater treatment plants



The influence of contamination of **O<sub>2</sub>-probes** on the measurement data is often neglected. Coatings block the path of oxygen molecules and thus reduce the measured oxygen content. As a result, the process control system records the falsified information and draws suboptimal conclusions based on it. For example, excessive aeration due to under-estimated oxygen levels leads to increased energy consumption.

### The use of sonic**clean** in wastewater treatment plants ensures an accurate measurement of the oxygen values!

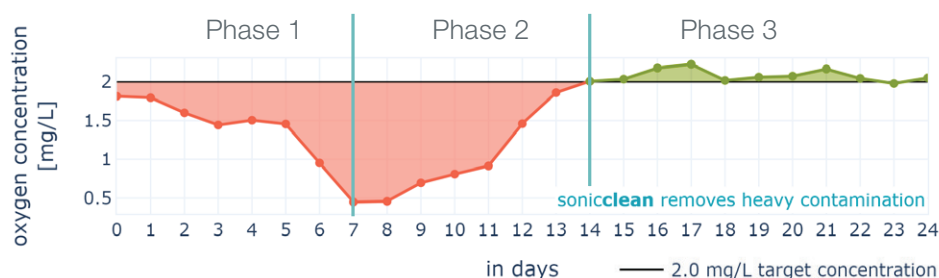
- ➔ O<sub>2</sub>-probe remains in the process
- ➔ Probes thus provide accurate real-time data
- ➔ Saves energy through optimised aeration
- ➔ Work efficiently without manual cleaning
- ➔ Monitor limit values more accurately with sonic**clean**
- ➔ Durable and robust upgrade for probes

## Saving energy through efficient aeration:

Phase 1: Contamination builds up on the oxygen probe

Phase 2: sonic**clean** is activated: cleaning begins

Phase 3: Contamination has been removed – the probe is kept clean



Further information  
on probe cleaning



# In combination with process control systems

With our sonic**clean**, you can control the cleaning process specifically via your process control system. You can set individual cleaning cycles and thus can react to special conditions.

## For clean sensors in industry



The influence of contaminations on the measurement data of **pH-sensors** is largely underestimated. Impurities and the formation of layers block the path of the ions through the sensitive membrane of the pH sensor. The effect is often thought to be caused by an internal drift of the measured value. As a countermeasure, the sensor is recalibrated or the actual process values are estimated from the measured data.

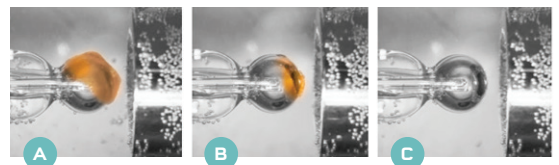
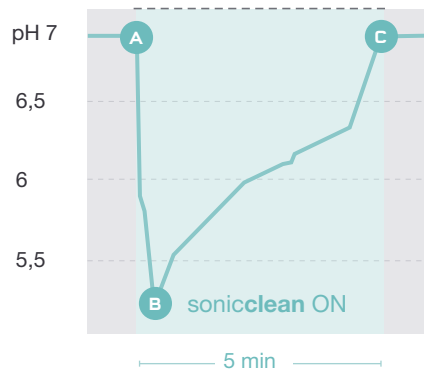
### The use of sonic**clean** in industry ensures accurate, reliable and continuous process information in real time!

- ➔ Gentle, effective cleaning
- ➔ Optimization of time, quality and safety
- ➔ Ultrasound works on the entire measuring head of the probe
- ➔ Suitable for O<sub>2</sub>- and other sensors
- ➔ Reduced maintenance effort
- ➔ Reduction of downtimes

## A clean sensor within a short time:



application  
examples



contamination of the sensor    sonic**clean** active    clean sensor within 5 min\*

— pH-profile with sonic**clean** ON

\* \* The cleaning time depends on the degree and type of contamination.



» We are proud and happy  
to combine so much  
competence and enthusiasm  
in our team!

Dr. Stefan Radel & Mag. Georg Heinz  
Managing Directors  
usePAT GmbH

The award-winning usePAT team around the **managing directors Dr. Stefan Radel & Mag. Georg Heinz** consists of experts from different backgrounds. The technology combines different scientific fields such as ultrasonic & technology development, mechanical engineering, chemical analytics, electronics and process engineering. In addition, usePAT works with experts from the fields of **spectroscopy, process technology, software, microcontrollers and industrialization.**

usePAT is an Austrian company based in Vienna and serves customers worldwide. We develop, produce and distribute ultrasonic devices to improve in-line measurements in liquids.

**For further information and orders  
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