Benefits

- Online access to water

- Quality, pH levels, chlorine and levels etc

- Alarms whenever certain thresholds are reached — faster problem resolution

- Different access levels for different users

Solution:
Remote Management

Customer: Pahlen AB

Country: Sweden

Industrial Internet of Things by the pool

Swedish Pahlén AB can check the status of their pool systems without getting their feet wet. "How can we allow our customers to check the status of their pools without actually being there?" This was the question that led Swedish pool equipment manufacturer Pahlén to the Netbiter Remote Management solution. After a very clever implementation project, Pahlén can now offer online access to their pool equipment giving customers full control of the water quality and status of their pools, wherever they are.

Pahlén AB delivers premium pool equipment such as pumps, filters, heaters, and dosing devices to their customers around the world. For their customers in Europe, Russia and the Middle East, Pahlén has developed the Autodos measuring and control unit which continuously monitors pool water quality and automatically controls disinfection and pH levels. Through the use of automatic dosing, the chemical consumption is controlled and kept to a minimum.

"The Autodos system is mainly used for commercial swimming pools and is now a proven and trusted system for measuring and dosing," says Gunnar Samuelsson, Marketing Manager at Pahléns. "For the third generation of the Autodos system, we needed a way to access the values in Autodos without actually being on site – that's how we came across the Netbiter solution from HMS." Pahléns wanted to give users the same experience on screen as they would if they were in front of the Autodos control panel. Netbiter was a very good fit since it has a configurable user interface where you can insert your own pictures and create a tailor-made dashboard which looks similar to the Autodos HMI.

> **" The Netbiter solution has certainly given us a competitive advantage as we can offer online access to pool information to both resellers and end customers. "**
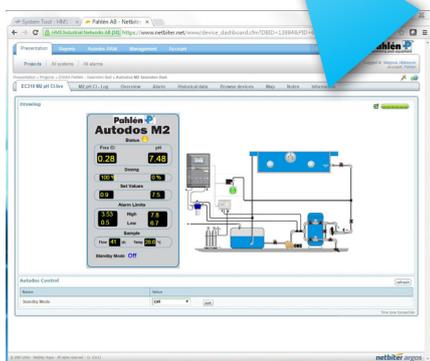
Gunnar Samuelsson, Marketing Manager, Pahléns AB.

www.netbiter.com

HMS Connecting Devices™

Pahlén's Autodos with
Netbiter gateway.

Online access at www.netbiter.net

What Industrial IoT looks like
An example of a dashboard that
customers can see when logging into
www.netbiter.net. The schematic
picture of the pool system contains
live parameters from the actual pool
measured by the Autodos system.

From pool to the Internet — How it works

A Netbiter gateway is connected to the Autodos system via an RS485
connection. The gateway sends data from the pool system to the
Netbiter Argos Data Service via Ethernet or the cellular network. Since the
Autodos systems are usually installed in public swimming pools, it is often
possible to connect the Netbiter gateway to an Ethernet network. But in
certain cases, when the customer cannot offer a network connection,
the gateway can still send and receive data via the cellular network.

In the web-based dashboard at www.netbiter.net, users see exactly what
they would see on the Autodos display. This graphical recognition makes
it easy to view and understand values and parameters. The system can
also send alarms via email or text messages when pH or chlorine values
reach certain levels. It is then possible for maintenance staff to go in and
remotely block further dosing to the pool.

User-specific access rights

Pahléns can offer different access levels to the online system so that the
end customer can log in and view certain parameters, while the resellers
and maintenance staff can do a bit more. This makes it possible to offer
correct and accurate information to the right people and guide alarms
and warnings to service staff. Included in the Pahléns offering Pahléns
has chosen to include Netbiter gateways in their own offering making
them a one-stop-shop for pool monitoring. They call the solution Autodos
RAM (Remote Access Monitoring) and offers this as an add-on service to
their pool equipment. Since Pahlén offers premium pool solutions with a
focus on quality, The Autodos RAM give their demanding customers extra
value.

"The Netbiter solution has certainly given us a competitive advantage as
we can offer online access to pool information to both resellers and end
customers," says Gunnar Samuelsson. "We can preconfigure our systems
and then offer the correct information to the right people, regardless of
where they are located."