

Case study: Wastewater & Agricultural products



Benefits

- Reduce onsite time and cost by 60%
- Monitor thanks to alarming and data logging
- Secure remote access to tweak the parameters
- Minimize technician on site visits
- O Near real time equipment status updates

"This is a valuable tool that saves money by not having to send a technician on site to make the changes locally"

Pat Rezin, CEO at USEMCO Inc.

Monitor and troubleshoot digesters from a distance.

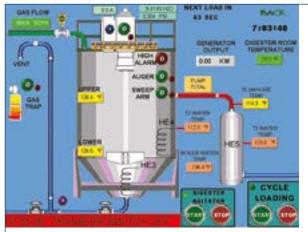
USEMCO- Universal Sanitary Equipment Manufacturing Company based in Tomah, Wisconsin, is the industry leader for the custom engineering and manufacture of turnkey pump stations, control systems and access doors for Municipalities and Industry.

Installing an Ewon industrial router, which provides secure GSM and Ethernet remote access, control, alarming and data logging, has enabled USEMCO Inc. to easily add a cost effective competitive advantage to their USEMCO Bi-gester® anaerobic digester facility, while using the freely available Talk2m cloud infrastructure for simplified and managed device and user authentication. Integrating enhanced data collection was easily achieved through a variety of flexible options from CSV export to an API while enhancing their abilities to meet the challenges of their wastewater customers.

Mike Harris, engineer at USEMCO comments: "We are working on technologies to make anaerobic digesters feasible on small to mid range farms, with as few as 100 cows to turn waste into energy. We also use the generator to heat water that is used to heat the manure in the digester processes. Some of the heated water is also sent to the barn to use in their in-floor heating systems. Increased fertilizer quality and reusable bedding are a couple more benefits to our anaerobic digesters. The Ewon industrial routers allow us to incorporate an easy to setup industrial solution to meet our customers' needs for now and through the future."

Reliable, secure encrypted remote access reduces on-site visits

The remote login capabilities of the Ewon solution allow making remote programming changes to the PLC and the operator interface. This is a valuable tool that saves money by not having to send a technician on site to make the changes locally.







Screenshot of a remote VNC connection to the OIT to view the digester status

USEMCO Inc. CEO Pat Rezin standing under the 30,000 gallon anaerobic digester

The combination of the Ewon industrial routers and the VNC capability of the operator interface enables USEMCO engineers to remotely log into the display and navigate the screens to see how the digester is performing. Collecting data to build a usable database helps evaluate critical operations of the digester and determine necessary changes to the process. Digester temperatures, biogas flows, biogas pressures, generator status, power generated, tank levels, water temperatures, pumping totals, and room temperatures are just some of the data files that are being collected.

The Ewon industrial router is programmed to email the status updates eight times a day, as well as to send an email and a text message if an alarm condition exists. The messages are sent to multiple people depending on the nature of the alarm and the available person.

Along with the data collection and alarm functions, a software package poles the electric meters and posts the data to the web. This allows the farm owner and generator service technician to view the kilowatt output of the generator.

Managed infrastructure with future proof scalability in mind

The ability to add, delete and manage both users and devices from a centrally managed cloud based infrastructure reduces the setup and configuration times. Remote access sessions are encrypted regardless if the connection type is GSM cellular or Ethernet. Knowing that it's easy to scale from on-demand remote access connections to permanent real-time connections provides USEMCO customers with peace of mind. The system can accommodate any type of control, equipment and instrumentation requirement regardless of the PLC/ RTU model or protocol

"The Ewon industrial gateways allow us to incorporate an easy to setup industrial solution to meet our customers' needs for now and through the future."



Learn more on www.ewon.biz

The Ewon Flexy is a multipurpose internet data gateway that allows Machine Builders to monitor and collect vital KPIs for analysis and predictive maintenance.

