

Optimised Anaerobic Digestion: Faster Return on Your Investment

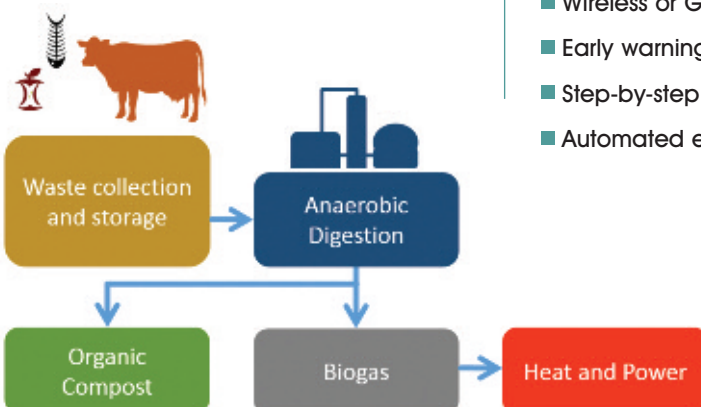
ADvisorMV

OVERVIEW

Anaerobic Digestion (AD) represents the future of sustainable energy and helps solve the problem of organic waste disposal. Operation of AD plants can be straightforward provided the system is monitored and adjusted in a timely manner. But getting the best out of your AD can be challenging and frequently requires more time and expertise than is available.

Small scale AD plants – with <500 kW units – are often not equipped with the same level of instrumentation available on larger units. While simple tests are performed to indicate plant status, operating the plant at peak efficiency can be challenging for most owners.

Getting the feedrate right is critical. Too much, and the AD can produce excess foam, causing blockages, downtime and lost earnings. Lower the feedrate too far, and the AD operates inefficiently – your methane yield falls and the payback on your investment drops.



MORE BIOGAS, FASTER PAYBACK

Your digester needs to generate biogas to pay for itself. Whether your AD is used for on-site heat and power, or whether the gas is scrubbed and injected into the gas grid, keeping the plant running and producing more methane from your waste is always beneficial.



ADvisorMV Dashboard:
all the information you need about your digester's performance:

- Real-time organic loading rate (OLR)
- Financial summary

ADvisorMV – YOUR ON-SITE AD EXPERT

- Simple interface to record, monitor and optimise biogas production, for small- to large-scale Anaerobic Digesters
- Dashboard graphics show daily biogas production, methane yield, financial summary and organic loading rate
- Tablet PC interface for data recording with live displays and remote alerts
- Wireless or GSM connection, directly to host
- Early warning of abnormal operating conditions or process bottlenecks
- Step-by-step operator guides to put the plant back on track
- Automated email and SMS action alerts

**PERCEPTIVE
ENGINEERING LTD**

www.perceptiveapc.com/advisor

Understand and Improve AD Operation at the touch of a button

Make Your AD Work Harder, Safer

ADvisorMV from Perceptive Engineering works with all AD plants, large or small.

At its heart is a **Data Quality Monitor**, developed to inform operators when signals are suspect or when probes require maintenance.

Test results and validated process values are automatically stored for future review and inspection.

Next, the **Process Monitor** uses data from the process instruments (supplied with the system) to detect overload conditions, then advise when, and what, to adjust.

Using a robust model of how the plant could and should operate, it then **automatically** identifies any other issues or problems that will reduce biogas production.

Finally, it **automatically** guides the operator through a series of easy-to-follow steps, to ensure methane yield remains high.

THE RESULTS?

- Changes are spotted and corrected before they become problems.
- Configurable email or SMS text messages can be set up, to alert you of process issues before they compromise efficiency.
- Plant operation is maintained closer to design, so the payback on your investment is maximised.
- Methane yield increases and your plant can safely process more waste..

Perceptive Engineering's **ADvisorMV** can be purchased with OEM Anaerobic Digesters or retro fitted to existing installations to ease operation and maximise output.

PROCESS KNOWLEDGE, PROCESS CONTROL: RIGHT AT YOUR FINGERTIPS

You need a reliable system that makes it easy for you to get the best return for your investment, with the minimum technical input and the minimum drain on your time.

ADvisorMV brings powerful monitoring and control tools from other industries into an intuitive package, designed for real-world operation of AD plants.

In the background, **ADvisorMV** is monitoring your plant 24 hours a day. When you carry out your normal tests, that new information is captured and correlated with how the plant is performing, even when there's a delay between sampling and testing.

Using the same techniques that optimise refineries, **ADvisorMV** then advises you on the best changes to make, to keep gas yield high.



You enter your daily test results through a simple interface, and **ADvisorMV** does the rest. Within minutes the system warns you of abnormal operation, then gives you a series of step-by-step guides, to help ensure your investment is performing close to its peak at all times.

