

**MECO**  
*smart* ANALYTICS™

WHERE TOMORROW GETS ITS WATER®

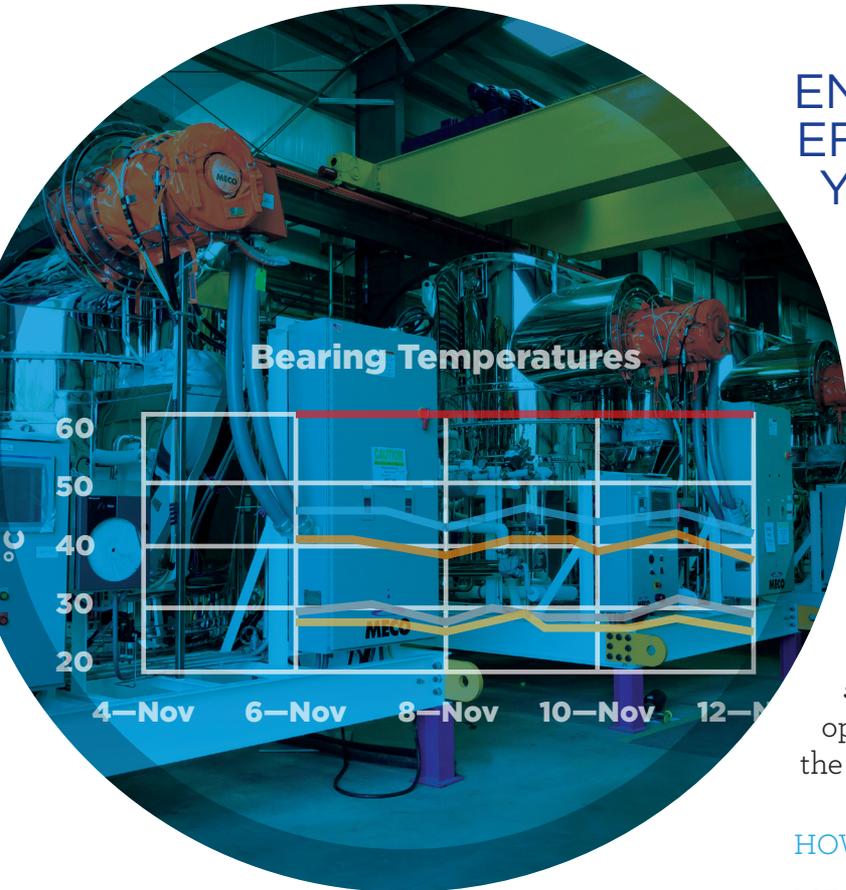
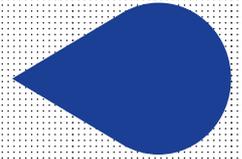


# MECO SMART ANALYTICS CAPABILITIES



DATA ANALYSIS  
ENGINEERED  
FOR WATER  
PURIFICATION  
SYSTEMS.

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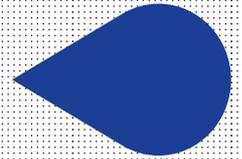
## ENGINEERED TO ENSURE MAXIMUM EFFICIENCY AND PRODUCTIVITY OF YOUR CRITICAL OPERATIONS

Water purification is a critical and complex process in manufacturing operations that is accompanied by substantial costs and potential impacts to the environment. Simultaneously, every water purification plant has the potential to generate an untapped amount of data. If used and analyzed properly, this data and analysis can improve operations in a number of ways.

MECO has been focused on designing and building water purification plants for 90 years with thousands of plants installed worldwide. That's a lot of experience in a variety of applications and processes. MECO *smartANALYTICS* connects you to that experience to improve your operational efficiency and reliability while minimizing your impact on the environment.

### HOW IT WORKS

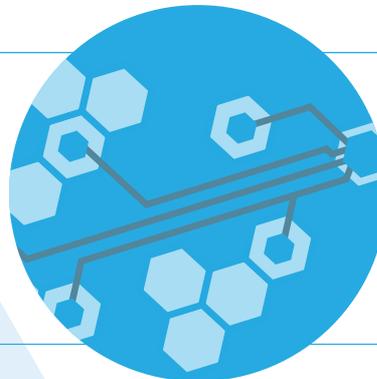
MECO *smartANALYTICS* utilizes a hardware package combined with software to collect data on system processes including temperatures, pressures, vibrations, flowrates, frequencies, voltage, amperage and other parameters. MECO *smartANALYTICS* profiles your plant to the manufacturing standard design and other plants in the field that are identical or similar to yours. Our engineers are able to help you make informed decisions for optimal system performance and predictive maintenance.



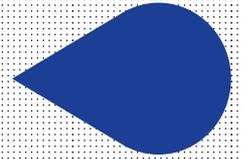
## WHY SHOULD MECO SMART ANALYTICS BE A PART OF YOUR WATER SYSTEM?

### VALUABLE INSIGHT AND RELIABILITY

Using available data, your water system can produce at maximum uptime with efficiency and reliability. Through continuous monitoring, MECO experts can help optimize your system's performance and review your systems changing conditions. This allows your operators more time to focus on other processes, minimizing administrative burden, increasing confidence and peace of mind with your team. MECO *smart*ANALYTICS improves your day to day operations and productivity.



“ Pure Insights.  
Pure Solutions.  
Pure Water. ”



## MORE THAN JUST A WATCHFUL EYE

### OPTIMIZING OPERATION

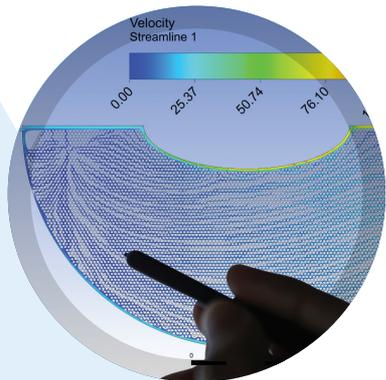
Typically, the operating costs associated with a water purification system are significant and many times the first cost of the system over its lifetime. MECO *smartANALYTICS* will help minimize your consumption of utilities and consumables through the communication of best practices.

### INCREASE UPTIME & COST SAVINGS

The water purification process can be complex and is a critical utility. Maintenance is required and predictive maintenance is best. Early warnings avoid unscheduled shutdowns and production loss which in turn can save you money. Through data profiling, we will work to identify problems before they arise. We will gain insight to issues you may have, pro-actively schedule maintenance as well as provide emergency support you may need.

### SUSTAINABILITY

With MECO *smartANALYTICS*, we can help minimize your water footprint by maximizing your pure water recovery such that your water system takes less raw water from the source and discharges less to the environment. Co-currently, the amount of consumable and disposable products like filters and membranes are minimized.





## TECHNOLOGY IN THE FIELD: VAPOR COMPRESSION

### PRODUCTION CAPACITY

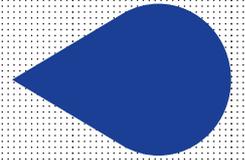
Production capacity is at the top of our list to evaluate. Fluctuations are usually caused by external influences and we are able to evaluate those and work with you to assess their significance.

### OPTIMIZING UTILITIES CONSUMPTION.

Utilities consumption makes up a significant proportion of the operating costs of your water system. MECO *smart*ANALYTICS collects data for us to evaluate your vapor compression plants such that we can recommend the most energy efficient operating parameters. MECO experts can support your facility in minimizing your electric and heating load.

### PREDICTIVE MAINTENANCE

Every input to your GII Centurbo™ compressor is monitored and profiled. Bearings, windings and cooling water temperatures along with vibrations, amperage, voltage and frequency. We want to identify any issues before they become a problem and we want to schedule routine maintenance before it is due.



Slight variations in measurements that may be unfamiliar or appear insignificant can have larger or longer term implications. The data from your machine is profiled against its own operating history, the design standard and identical or similar machines in the field.

#### SUSTAINABILITY

In order to maximize your systems efficiency and reduce its impact on the environment it is important to react to change. As production flowrates or feed water quality changes we will advise on best practices to minimize your intake and outfall discharges. We will also work with you to minimize consumable and disposable supplies.

#### EXPERT OVERSIGHT

With offices in North America, Asia and Europe, our experts are on call twenty four hours a day. Water purification is not a sideline for MECO, it is all we do and we have been at it for over 90 years.

## OPTIMIZING THE OPERATION OF YOUR WATER SYSTEM

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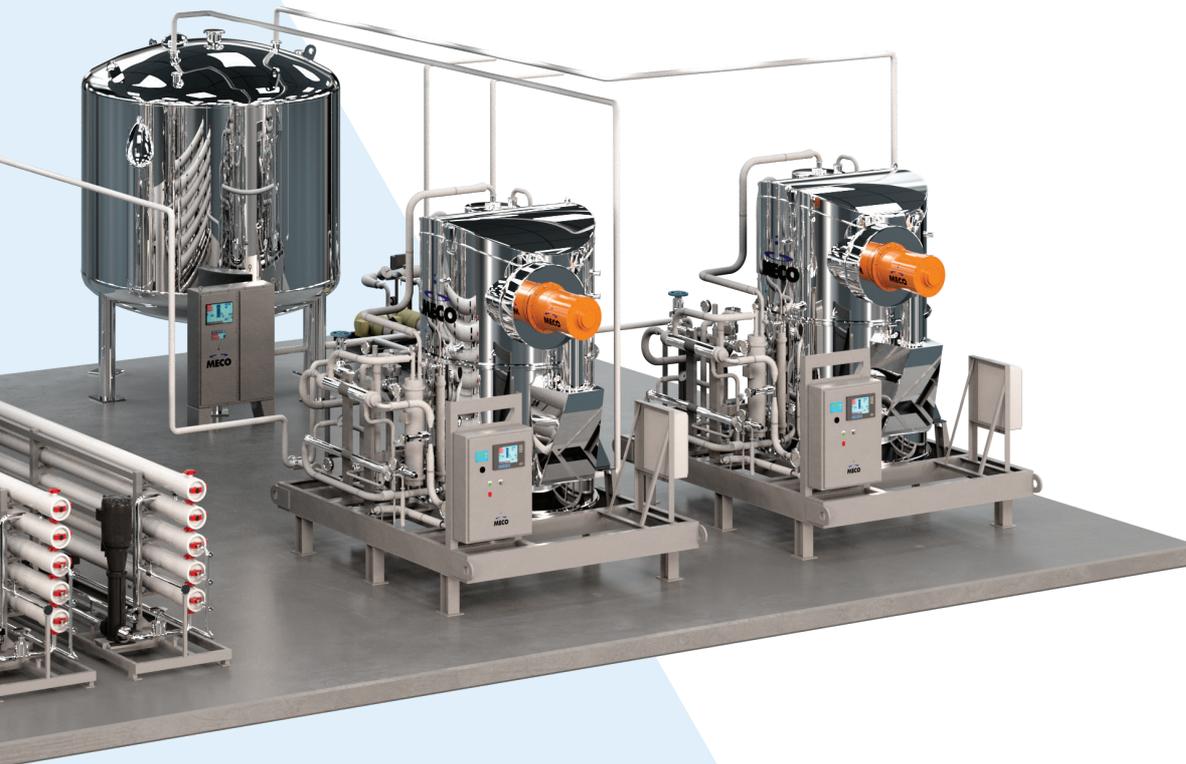
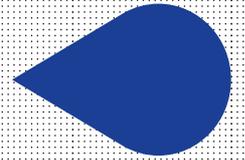
### REDUCED WATER FOOTPRINT

Optimizing reject rates, backwash and rinse cycles puts less stress on the environment and lowers your cost of operation.

### PEACE OF MIND

You can be confident knowing that a team of experts dedicated to you and the successful operation of your water system is well informed and at your side for routine or emergency service.





### MINIMIZE ENERGY CONSUMPTION

Best practices closely match production to demand, smoothing out peaks, minimizing starting and stopping while increasing the energy efficiency of your water system

### PREDICTIVE MAINTENANCE

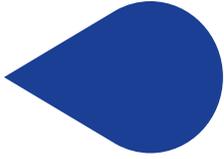
Online diagnostics monitors a multitude of data inputs identifying changes out of the ordinary and inconsistent with design standards. Schedule maintenance before it's due.

### SUSTAINABLE PRACTICES

In addition to water and energy conservation, best practices seek to minimize the use of consumables, replacement filters and membranes.

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