

# MPW Industrial Services optimizes water treatment with Endress+Hauser Liquiline System CA80SI silica analyzer

## Company boosts reliability and efficiency by standardizing on liquid analysis instrumentation



MPW Industrial Services is a leading North American provider of integrated industrial cleaning, water purification, facility management and total waste services. The company aims to improve operational efficiency, reliability and cost-effectiveness through customized tooling and mobile systems developed by their in-house engineers and technicians. MPW's trained personnel emphasize client responsiveness, ethical standards and safety. For additional details, visit [www.mpwservices.com](http://www.mpwservices.com).

### Benefits at a glance

- Improved reliability
- Cost savings
- Operational efficiency
- Enhanced accuracy
- Simplified inventory
- Remote accessibility
- Seamless integration
- Advanced diagnostics
- Low maintenance

**Summary:** MPW Industrial Services, a leader in industrial water treatment, standardized its liquid analysis instrumentation with Endress+Hauser's portfolio, initially focusing on pH probes and the Liquiline platform. The company later adopted the silica analyzer Liquiline System CA80SI to address persistent challenges with previous vendors' equipment. This transition resulted in improved reliability, cost savings and

operational efficiency, significantly enhancing MPW's analytical capabilities. As a result, MPW recognized Endress+Hauser and its sales and service representative partner, George E. Booth, Co., as joint winners of its 2024 Supplier of the Year award.

**Challenge:** MPW Industrial Services faced several significant challenges with another manufacturer's silica analyzers.



MPW Industrial Services in Hebron, Ohio



MPW Industrial Services' mobile ultrafiltration/reverse osmosis water filtration system

Design drawbacks, such as tubing that could leak process water onto the main circuit board, led to frequent failures and reliability issues. MPW's operational model, which involves frequent starts and stops, was incompatible with the previous analyzers, causing reagent wastage and staining in the reaction chambers. This staining compromised measurement accuracy, as the colorimetric process used by the analyzers was highly sensitive to any discoloration or deformities in the chamber. Additionally, the previous analyzers required frequent maintenance due to these challenges, leading to increased downtime and operational costs. MPW's centralized support model, which relied on robust remote access capabilities, was also hindered by the limitations of the previous manufacturer's analyzers.

**Solution:** Endress+Hauser and George E. Booth, Co. introduced the Liquiline System CA80SI silica analyzer, which MPW piloted first in the United States. The CA80SI seamlessly integrated with MPW's existing Liquiline infrastructure, allowing for centralized monitoring and control. This integration was crucial for MPW, enabling the company to leverage existing remote support capabilities. The analyzer could be accessed and controlled remotely via a web browser, allowing MPW's technicians to receive real-time support and guidance from experts regardless of their location. This remote accessibility was particularly beneficial given MPW's operational model, which involved mobile installations that could remain on-site for months or even years.

The CA80SI could be programmed to stop and start automatically, reducing reagent consumption and

preventing staining by stopping the analyzer at appropriate points in the process. This operational flexibility was a significant improvement over the previous analyzers, which struggled with MPW's frequent starts and stops. The CA80SI's robust design eliminated the risk of water damage to electronics, significantly improving reliability. Additionally, its compatibility with MPW's Allen-Bradley control systems from Rockwell Automation ensured seamless integration and simplified inventory management.



Endress+Hauser's Liquiline System CA80SI silica analyzer on-site at MPW's Hebron, Ohio facility

“By standardizing with Endress+Hauser, we know we’re not going to have any compatibility issues,” Greg Hamill, Engineering Supervisor at MPW Industrial Services, said. “With our control software, it becomes sort of an inventory management, so it’s a win for us on the inventory management side of things because we get more and more standardized using just Endress+Hauser parts.”

Holistically, the CA80SI provides precise online analysis of silica, helping protect plant equipment from scale-like deposits and ensuring optimum performance of turbines and ion exchangers. Its unique combination of peristaltic and high-precision dispenser pumps enables extremely reliable operation and low maintenance. The analyzer offers advanced diagnostics and can be easily adapted to process needs by retrofitting up to six measurement channels and connecting up to four Memosens sensors. Additionally, the low reagent consumption and increased accuracy comparable to lab results further enhance its value.

**Results:** The adoption of the CA80SI resulted in several key benefits for MPW Industrial Services. The robust design and operational flexibility of the CA80SI eliminated the risk of water damage and effectively handled MPW’s frequent operational starts and stops. This improved reliability reduced the need for frequent maintenance and minimized downtime, leading to significant cost savings. By reducing reagent consumption and preventing staining, the CA80SI also improved the overall quality of MPW’s water treatment processes. Using the appropriate calibration standards, MPW achieved more consistent and accurate readings, especially in the lower ppb range. This enhanced accuracy was critical for MPW’s operations, ensuring the high quality of the water they provided to customers.

Standardizing Endress+Hauser components simplified inventory management and ensured compatibility with MPW’s control systems. This standardization also facilitated easier maintenance and reduced the need for diverse spare parts. The remote accessibility of the CA80SI allowed MPW’s centralized support team to provide real-time assistance to field technicians, improving troubleshooting efficiency and reducing downtime. This capability was particularly valuable given MPW’s operational model, which involved mobile installations and a workforce that was more experienced in logistics than instrumentation.

MPW plans to rely on Endress+Hauser and its sales and service representative partner for the foreseeable future.

“If you all make the instrumentation we need, we’ll use it,” Hamill said.

Overall, MPW Industrial Services’ adoption of Endress+Hauser’s CA80SI units, supported by its sales and service representative partner George E. Booth, Co., has resulted in enhanced reliability, cost savings and operational efficiency. The seamless integration with its existing system and the ability to remotely manage and troubleshoot the analyzers have been key factors in its success.

To learn more about the Liquiline System CA80SI silica analyzer, [click here](#).



Endress+Hauser's Liquiline System CA80SI silica analyzer

[www.addresses.endress.com](http://www.addresses.endress.com)

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