December 23, 2025
Meidensha Corporation

Meidensha, Okano Valve Mfg. (Fukuoka) explore partnership for valve monitoring, predictive maintenance

Collaborative effort aimed at promoting smart maintenance, digital transformation at large plants

Meidensha Corporation and Okano Valve Mfg. Co. Ltd., headquartered in Kitakyushu, Fukuoka Prefecture, are considering a partnership to harness their expertise in smart maintenance and digital transformation at large facilities, including nuclear and thermal power plants. The collaboration seeks to integrate Meidensha's REMOTIER—an AI-driven service for remote monitoring and diagnosis of rotating machinery—with Okano Valve Mfg.'s VQ-ORCL, a cutting-edge technology for remote health analysis of valves.

Once the partnership is formalized, Meidensha and Okano Valve Mfg. plan to roll out a new service by the end of fiscal 2026. This service is designed to enhance maintenance efficiency, stabilize operations at power plants and other large-scale facilities, thereby advancing the concept of smart maintenance.

The next-generation smart maintenance solution being developed through the partnership will be exhibited at Meidensha’s booth during Factory Innovation Week 2026. This event is scheduled to take place at Tokyo Big Sight in Koto-ku, Tokyo, from January 21 to 23.

■ Background for considering partnership

At thermal and nuclear power plants, efficient management of steam, water, oil, and other liquids is essential for improving power generation efficiency and safety. Valves are critical components in turbine and boiler operations, as they regulate flow rates and pressures. However, routine inspections of valves have typically been performed manually, leading to challenges such as the need for early anomaly detection through monitoring and the adoption of predictive maintenance to avert sudden and unexpected malfunctions.

In 2023, Meidensha began offering REMOTIER to water treatment facilities and factories. This service is designed to optimize maintenance tasks for motors and

machinery, monitor their conditions, and enable predictive maintenance. Meanwhile, Okano Valve Mfg., a leading manufacturer of high-pressure valves for power plants—a specialized niche—is expanding sales of VQ-ORCL as part of its VQ (Valviquitous) digitalization service for large-scale facilities. The two companies have opted to explore collaboration to generate new value in next-generation smart maintenance of valves by leveraging their combined expertise.

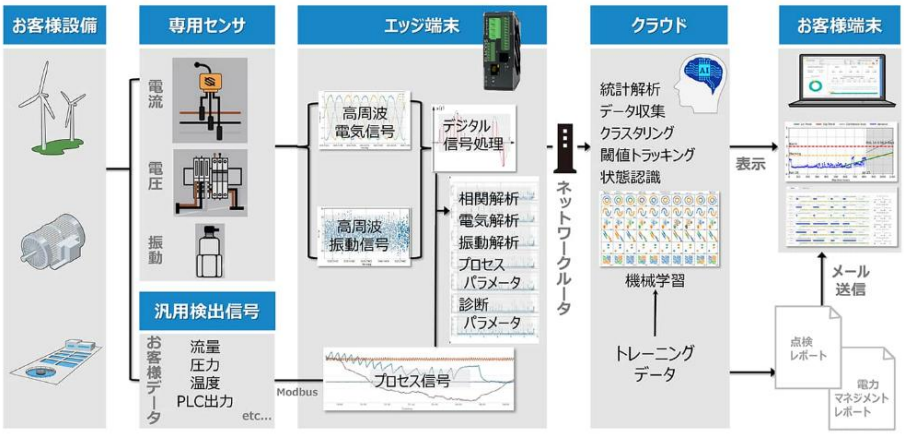
■ Roles of the two companies

Meidensha: Provision of technologies for measuring and analyzing rotating machines

Meidensha plans to offer the measurement and analysis technology of REMOTIER for rotating machines. This technology can measure electric current and voltage at high frequencies and process the data using edge computing. Additionally, it provides AI-based analyses of the conditions of rotating machines, leveraging both edge computing and cloud servers.

Okano Valve Mfg.: Provision of valve sensing technology

Okano Valve Mfg. will supply VQ-ORCL technology, which allows for remote diagnosis of valve conditions without the need for disassembly. This is accomplished by converting electric current and voltage from the valves during operation into valid data for analysis. The diagnostic data collected from tens of thousands of VQ-ORCL units to date, combined with the company's diagnostic expertise, will be essential in developing highly reliable technology and services supported by big data.



REMOTIER's measurement and analysis technology

VQ-ORCL's measurement and analysis technology

■ About the exhibition at Factory Innovation Week 2026

Link: https://www.fiweek.jp/tokyo/en-gb.html

Opening hours: 10:00-17:00 on January 21-23, 2026

Venue: Tokyo Big Sight

Exhibition site: S7-7

Business contact：https://meiden.form.kintoneapp.com/public/remotier-contact

■ About Okano Valve Mfg.

Company name	Okano Valve Mfg. Co., Ltd.
Establishment	November 3, 1926
Representative	President & Representative Director Takeshi Okano
Location	1-14, Naka-machi, Moji-ku, Kitakyushu, Fukuoka Prefecture
Official website	https://okano-valve.co.jp/
Business outlines	Development, manufacturing and maintenance of high-temperature and high-pressure valves for power generation; commissioned manufacturing of industrial products; various types of construction work at industrial plants; commissioned research and development; and implementation and support of digital transformation, industrial and regional promotion

By establishing this partnership, Meidensha and Okano Valve Mfg. aim to expand their integrated service offerings to thermal and nuclear power plants not only in Japan but also across Asia, the Middle East, Oceania, and South America. They are also exploring the possibility of broadening their services to include intermittent operation equipment, such as water gates and dampers, with a goal of delivering 3,000 units by 2030. The two companies are committed to providing next-generation smart maintenance solutions that

cater to their clients' needs.

- Reference

  Meidensha: Overview of REMOTIER, an AI-based service for remotely monitoring and diagnosing the health of rotating machines (Japanese only)
  https://www.meidensha.co.jp/products/ict/prod_08/prod_08_01/
  Okano Valve Mfg.: Overview of VQ-ORCL, a technology for remotely diagnosing the health of motor-operated valves
  https://library.okano-valve.co.jp/english/pdf/ORCL-catalog_en.pdf