

OKANO VALVE MFG. CO. LTD.

JAPAN

Top Leading Valve Manufacturer

COMPANY PROFILE

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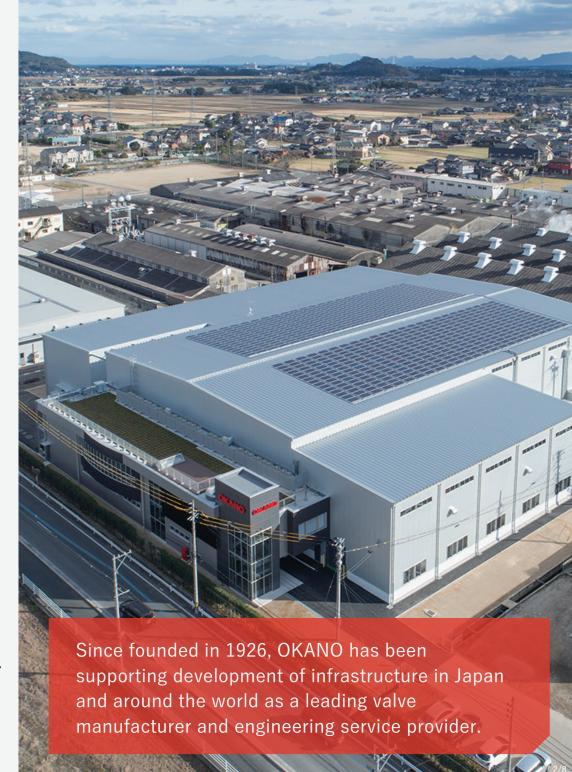
About OKANO

OKANO's Business Creeds

- **01** The spirit of manufacturing
- **02** VISION: Manufacturing Transformation
- **03** Value Transformation
- **04** Fusion of innovation and the spirit of manufacturing
- **05** Steady manufacturing technology
- **06** Supports the effort for the realization of safe and secure society and the development of world-class infrastructure

Business Lines

- Development, manufacturing and maintenance of high temperature and high pressure valves for industrial applications.
- Manufacturing of other industrial products and parts using our foundry capabilities.
- Various construction and maintenance works in industrial plants.
- Implementation and support of condition monitoring of industrial valves using current signature analysis technology.
- Research and development activities.



Our History (Since 1926) - 1

1926

Our Motive to Start

Okano Shokai Company, the predecessor of OKANO, was established in 1926. Having realized that valves had the highest frequency of failure among boiler components, and concerned about the implications, our founder Mitsuru Okano started the business with the intention of producing better quality products.

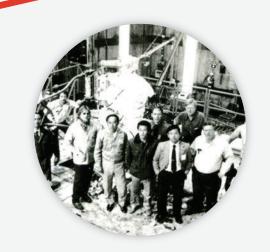


Contribution to Nuclear Power Development in Japan

Late 50' s and early 60' s OKANO started R&D in conjunction with national policy, and steadily achieved results as the core of nuclear valve development, appointed as a research group secretary company of the Japan Atomic Ship Research Association. After that, full-scale production was started, leading to delivery of all steam valves to Tokai Nuclear Power Station. With the construction of domestic nuclear power plants such as Tsuruga and Fukushima, OKANO's pursuit of technological innovation and added value progressed, enabling OKANO to manufacture all kinds of high-temperature and high-pressure valves for nuclear power sector.

Our First Product "SUPERO", the trad

"SUPERO", the trademark of OKANO's valve products, means "superior" and "excellent. In 1932 (6 years after establishment), we succeeded in producing our first product implementing Stellite material and being the first manufacturer to adopt this material in the valve industry which extended valves lifecycle for high temperature applications (450°C).



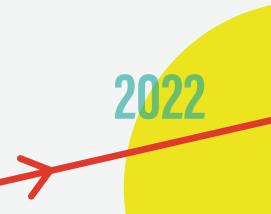
valves lifecycle for high temperatur (450°C).

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Our History (Since 1926) - 2

Maintenance and Aftermarket Services

The maintenance business, which is one of the current main businesses, dates back to 1954. Since its founding, the company has dealt with malfunction repairs and adjustment of safety valves. We traveled from 9 bases in Japan to industrial plants all over the world to maintain not only our own valves, but also other companies' valves and other types of equipment.



Over 1 Million OKANO Valves have been Delivered

Even today, OKANO is always present in the development of state-of-the-art nuclear power plants and thermal power plants such as ultra-supercritical pressure thermal power plants (USC), nuclear small modular reactors (SMR), and nuclear high temperature gas reactors (HTTR). as a valve manufacturer that achieves unrivaled quality.

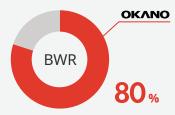
■KEY ACHIEVEMENTS in JAPAN



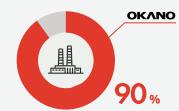


Over 1,000,000 valves

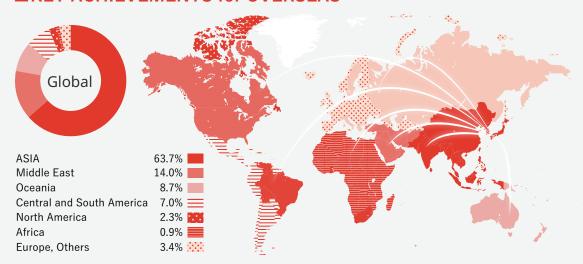
■Market share of high temperature and high pressure valves for BWR



■ Market share for thermal power plant



■KEY ACHIEVEMENTS for OVERSEAS



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Products & Services - 1

The valve manufacturing is OKANO's core business from casting to machining, assembly and testing we provide high-temperature and high-pressure valves for nuclear and thermal power plants. As a leading company in this field, more than 1 Million of our products have been delivered to power plants in Japan and around the world, and continue to support the social infrastructure.



Valve Types

- Gate Valves
- Control Valves
- · Globe Valves
- Pressure Relief Valves
- Check Valves
- Safety Valves
- · 3-Way Valves
- others



Valve Size

From DN 15 to DN 600



Pressure Rating

ASMF Classes 150 - 4500



Product Material

Forged and cast steel

(ex. Carbon steel, Low Alloy Steel, Alloy Steel Grade C12A, others)



Valve Design and **Manufacturing Standards**

ASME B16.34, JEAC3706, others



Valve Material Standard

ASTM, ASME, JIS, others



eneral Application

Power Generation, Petrochemicals, Ships, others



pecific Application

Boiler Outlet, HRSG outlet, Drain, Turbine inlet, HP heater, others



IBR, EN 10204 TYPE 3.1, EN 10204 TYPE 3.2, others

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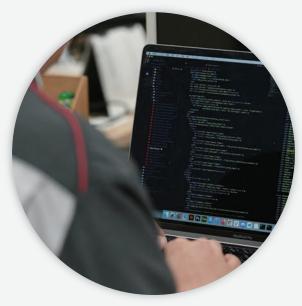
Products & Services - 2

Maintenance



Maintenance is another core business of OKANO along with valve manufacturing business. Completion of on-site maintenance of high-temperature and high-pressure valves is a prerequisite for quick turnarounds. Since 50's we have served several locations around the world. Recently, we have expanded our services range to cover site works, and technical support beyond regular maintenance activities.





VQ is OKANO's new business line that supports the equipment industry. From power plants, petrochemical plants, large-scale factories to town factories, we will reinforce your products competitiveness by promoting the digitalization of equipment and improving plants healthiness.





ERD is an Engineering Research and Development business that undertakes research and development and testing for external clients. Utilizing the elemental technology cultivated by OKANO, we support research and development in all fields, from materials to equipment and new products. In the testing field, we support testing and verification using our own special testing equipment and know-how, such as hydro testing and durability testing.

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Our Valued Partners

Plant Manufacturer / Engineering Company





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Power Company



The Japan Atomic Power Company POWER











Tohoku Electric Power co., Inc.

















Governmental Agency



Japan Atomic Energy Agency

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