Japanese Manufacturing: Stability for a New Economic Paradigm

As the globe moves into unprecedented economic times, Japan's hidden manufacturing champions are on display at Expo2025, proving they remain indispensable in maintaining global supply chains. *By Daniel de Bomford and Bernard Thompson*

With the current global economic headwinds and a push to rebuild domestic supply chains, advanced manufacturing capabilities will be essential in developing robust supply chains. Japan—with decades of investment in innovation—comes to the fore. Its hidden champions underpin industries globally, which is on show at the 2025 Expo Osaka; Japan is uniquely positioned to take advantage of the current economic environment.

Japan is fertile ground for advanced research and development. Companies like Iwata and Co. develop solutions for the vital semiconductors and chemicals industries. "Japan is widely known as a country that drives technological solutions and is able to leverage DX, IoT and precision manufacturing," says Takuya Iwata, president and CEO.

Manufacturers must leverage innovation to ensure they can meet global demands. Atsushi Narikawa, president of industrial sewing machine manufacturer Juki Corporation, says that building customer capabilities with IoT requires trust. "Juki's strength is its long-standing relationship with customers and accumulated know-how," he says.

> "As large companies focus on cost-cutting and risk avoidance, they increasingly rely on SMEs with specialized skills."
>
> **Kazuhito Wada**, president, Waquo Industry Co., Ltd.

Specialist Japanese manufacturer Kyowa expanded beyond the traditionally served sectors to meet the demands of emerging and transforming sectors, such as EVs and agriculture. President and CEO Shigeharu Nozawa speaks to the company's ethos, "Throughout our history, we have avoided relying on a single client, instead diversifying our customer base and handling a wide range of requests."

One key to resilient supply chains is leveraging strong global partnerships—an area where Japan excels. President Eishi Morita of Tsukasa Petco Corporation, a specialist in resin material trading and distribution, explains: "We act as a bridge between overseas manufacturers and Japanese companies with licenses and advanced technologies." By connecting international producers with Japan's high-value industrial base, Tsukasa Petco helps ensure stability and innovation, even amid economic uncertainty.

One pressing challenge threatening the global economy and supply chains is mitigating the changing climate. To help anticipate and manage lightning strikes, Otowa invested in and developed a lightning research center, which it opened in 2008. President Atsushi Yoshida explains, "One of our unique strengths is the ability to design and build one-of-a-kind, handmade testers." Otowa's surge protection systems will play a key role in the infrastructure of Expo 2025 Osaka, ensuring critical systems remain protected.

Manufacturing infrastructure is a critical component of the supply chain. Waquo President Kazuhito Wada describes how specialized SMEs building this expertise is essential to maintaining aging infrastructure and building from the ground up. "While large listed companies dominate the industry, SMEs like ours play a crucial role, particularly in infrastructure maintenance," he says.

With reaching net zero a priority for governments and the private sector alike, pump manufacturer Sanwa Hydrotech president and CEO, Kiyotaka Horiuchi, says the company has positioned net zero at the core of its global business strategy. He explains, "We must continuously respond to the demands of each era and develop products that truly make a difference."

Whether fabricating specialized parts, assembly or value-added services, nations looking to reinforce supply chains will find Japan an essential partner in their endeavors. The expertise of Japan's SMEs continues to underpin global manufacturing as markets adjust to new trade conditions, with an emphasis on domestic capabilities.

YAMATO GOKIN Targets U.S. Fusion Market with Advanced Fusion Reactor Materials

By Antoine Azoulay

In an era of renewed space ambitions—from the moon to Mars and beyond—fusion stands out as a potential game-changer. Promising a nearly inexhaustible, carbon-free energy source, fusion could radically reshape life on Earth and power future spacecraft across interplanetary distances.

Yet harnessing its potential demands extraordinary precision and technology. Fusion reactor cores can exceed 100 million degrees Celsius, requiring advanced materials—particularly copper chrome zirconium (CuCrZr) pipes—to cool the high temperatures in the plasma confinement chamber. Only a handful of companies can supply components reliable enough for this unforgiving environment.

Genjiro Hagino, president, Yamato Gokin
www.yamatogokin.com

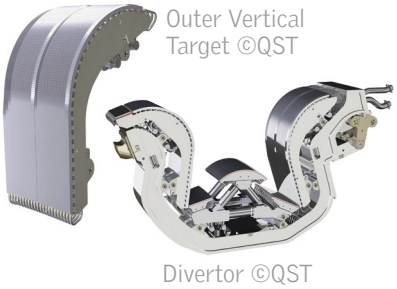
Amid this challenge, Yamato Gokin has emerged as the only company producing specialized materials for the divertor—key fusion reactor parts that handle and convert extreme energy. Having built its reputation in Japan, Yamato Gokin has extended its customer base to Europe, outbidding established firms with its proprietary CuCrZr and aluminum bronze (AlBr) alloys.

President Genjiro Hagino sees growth continuing: "We have supplied France, Germany and South Korea and attracted interest from Italy and the U.K. Ultimately, our goal is to gain clients in the USA's fusion energy market—especially startups."

Central to Yamato Gokin's appeal is its flexibility. The company accommodates small orders vital for iterative prototyping, working closely with startup engineers to customize alloy compositions. This collaborative R&D thrives on a network of Japanese manufacturers, enabling delivery of CuCrZr products and complementary materials for demanding fusion reactor designs. Having served U.S. aviation and electronics clients, Yamato Gokin already understands American engineering norms, smoothing the path for partnerships with fusion ventures.

Yet the greatest factor uniting Yamato Gokin with pioneering American startups is a shared spirit of innovation. Despite its heritage, the company retains a startup ethos, investing heavily in employee education and tackling ambitious technical challenges. This mindset echoes the urgent drive of U.S. fusion developers seeking to unlock new frontiers in space and energy. As these innovators refine fusion reactors that could power interplanetary spacecraft or sustain entire cities, they will find in Yamato Gokin the materials, expertise, and collaborative passion needed to transform fusion from aspiration to reality. A partnership forged on mutual trust and shared vision.

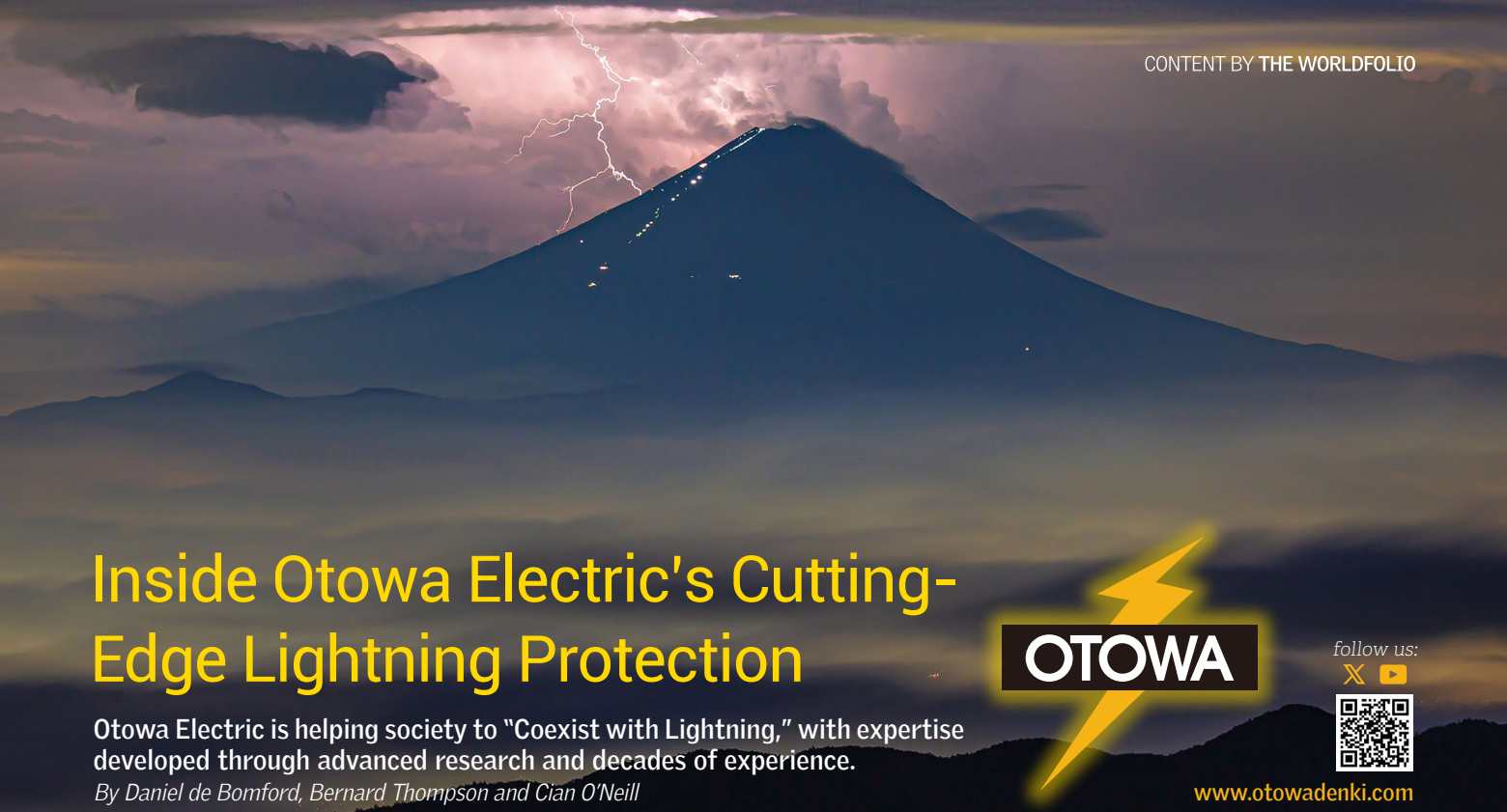
Tokamak reactor ©US ITER



Outer Vertical Target ©QST

Divertor ©QST

© CuCrZr Pipes



Inside Otowa Electric's Cutting-Edge Lightning Protection

OTOWA

follow us:

www.otowadenki.com

Otowa Electric is helping society to "Coexist with Lightning," with expertise developed through advanced research and decades of experience.

By Daniel de Bomford, Bernard Thompson and Cian O'Neill

When witnessing lightning, it is easy to see why cultures ascribed the power to gods and powerful entities across the world for thousands of years. From Zeus in Greek mythology to Japan's Raijin, lightning has long captivated humanity and birthed stories of awe and terror.

As lightning strikes increase due to changing global weather, predicting lightning storms and mitigating the damage caused by strikes is becoming increasingly important around the globe. Founded in 1946, Otowa Electric is a leading lightning and electrical safety provider. It leverages decades of expertise and research to manage the risks of lightning strikes through advanced detection and surge protection. President Atsushi Yoshida says that as global temperatures rise, so does the frequency of lightning strikes, which increases risks to people and infrastructure. He uses the Ise Shrine as an example: it is fitted with lightning rods to protect the wooden structures, which he describes as preserving history. "Given its cultural and religious significance, safety measures are essential to preserving such heritage sites," he explains.

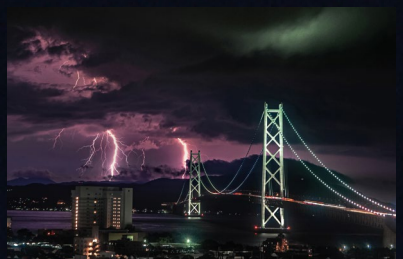
With the company's specialization in lightning, it has amassed vast amounts of know-how and has built its expertise around a holistic understanding of lightning. "As a manufacturer, we don't just sell a product—we analyze the entire path of a lightning strike, from entry to exit, and select the appropriate solution for each specific scenario," Yoshida says. Otowa Electric established its newest research center in 2008 with a custom tester capable of generating artificial lightning, which it uses to test its own products and on its clients' behalf. He emphasizes, "One of our unique strengths is the ability to design and build one-of-a-kind, handmade testers." That strength is built from the holistic understanding of lightning, integrating research on electrical engineering, meteorology, atmospheric sciences and geography. "This ability to coordinate across disciplines and translate that research into real-world solutions is, I believe, one of our company's greatest strengths," Yoshida says.

Otowa's guiding principle isn't to battle against the lightning, but rather, as its company motto states, to "Live with Lightning." This comprehensive and considered approach allows it to provide products and consulting services for its clients. It offers unmatched reliability, as it doesn't rely solely on simulations; its testing facility reproduces artificial lightning with 99.9 percent accuracy. Yoshida says, "This level of testing builds strong trust with our customers, as they can see firsthand how our products perform under actual lightning conditions." Another key strength is the company's ability to detect lightning activity in the atmosphere and electrical fields in clouds before lightning even forms and strikes. Otowa's goal is to reduce the size of the detection systems and expand their usability, to improve detection accuracy, which Yoshida says will advance alongside AI.

Critical infrastructure, such as robotics in manufacturing and data centers in IT, are particularly at risk from strikes caused by surges. "We anticipate continued growth in demand for surge protection within this sector as well, as automation becomes more widespread," Yoshida explains. The company's involvement with Expo 2025 in Osaka gives it valuable insights into identifying optimal locations for surge protection equipment and devices.

Otowa Electric is also leading by meeting the Sustainable Development Goals (SDGs) in environmentally friendly products and partnerships with developing communities. Through the African Business Education Initiative for Youth (JICA ABE Initiative), the company supplies lightning alert systems and surge protection devices in rural communities in Rwanda. Furthermore, it is providing educational programs for Rwandan schools and internships for individuals. Yoshida shares a story of a Rwandan intern who returned home and established his own company, which now partners with Otowa Electric. "What started as a challenge has evolved into a meaningful opportunity for us to contribute to the local community."

Research from organizations like Otowa Electric has pushed humanity to abandon the myths of lightning-throwing entities and facilitate the coexistence of people with the force of nature. Yoshida emphasizes the importance of adapting and embracing change, and Otowa Electric is set to continue to enable humanity to increase its understanding and safety. "Our main—and only real—mission is to protect the lives of people and society from lightning."



Chemical Bonds: Iwata Invests in Malaysia to Create New Synergies

Iwata looks to emerge as a leader in the Asian semiconductor and chemical industries through its recent acquisition of EXQ Materials in Malaysia. *By Daniel de Bomford and Bernard Thompson*

Semiconductors are the foundation of modern innovation, with billions of transistors packed onto chips small enough to fit in your palm—an extraordinary feat of engineering. These miniature powerhouses drive breakthroughs across industries, enabling everything from instant disease diagnostics to autonomous vehicles. Underpinning these advancements are innovations, like fluoro-resins, which ensure ultrapure environments critical for semiconductor manufacturing. These advanced materials enable the precision required for chips of this complexity, proving unseen innovations power transformative progress.

Japanese companies like Iwata & Co., Ltd. are at the heart of Japan's semiconductor dominance, driving innovation with unmatched fluoro-resin expertise.

> "As a company, we are driven by innovation and the desire to create in-house products."
>
> **Takuya Iwata**, president and CEO, Iwata & Co., Ltd.

IWATA
EQX·IWATA

www.iwata-cc.jp/index.php

And now, with the bold acquisition of EXQ Materials, now aptly named EQX Iwata, the trading company has cemented its foothold in Malaysia, positioning itself as a powerhouse in the booming Asia-Pacific market—reshaping the future of semiconductors and chemicals.

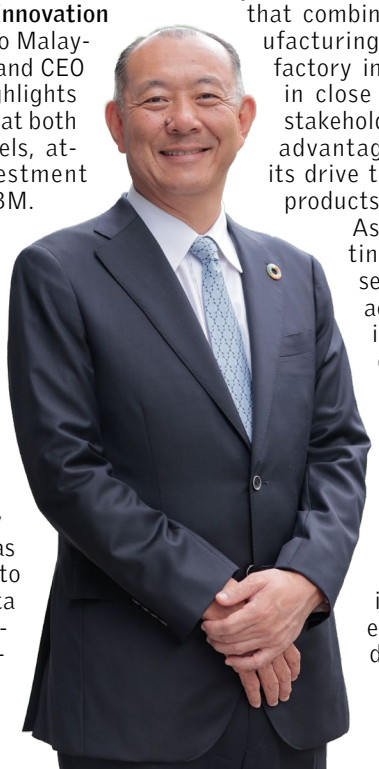
Bridging Nations, Fueling Innovation

The decision to expand into Malaysia was logical, President and CEO Takuya Iwata says. He highlights the government incentives at both national and regional levels, attracting significant investment from tech giants like IBM. Now based in the heart of Southeast Asia, Iwata's market knowledge combined with EXQ Iwata's regional distribution network positions it to expand its reach and penetrate the lucrative emerging Asian market.

"The country stood out as a favorable business environment with a highly skilled workforce, working as a regional hub with access to nearby countries," Dr. Iwata explains. Nor is Iwata resting on its laurels. The president states Malaysia is just another step in the strategy, with more mergers and acquisitions on the way as the company aims to increase its income by 10 percent year on year. "The ultimate goal is to become a top-tier global player in chemicals and advanced materials," he says.

Iwata's ambitions are firmly within reach, bolstered by a strong foundation. According to Dr. Iwata, despite its neighbors' cost-competitiveness, Japanese companies are given preference due to the added value provided. "No other countries can offer Japan's advanced technology-driven techniques," he says. "Japan is widely known as a country that drives technological solutions and is able to leverage DX, IoT and precision manufacturing." Dr. Iwata cites this as one of the reasons Iwata established itself in Malaysia, to supply Japanese materials and equipment to the burgeoning semiconductor industry.

Iwata distinguishes itself from the competition through its advanced R&D capabilities, which it leverages to solve the challenges of the semiconductor and chemical industries. Through its accumulated knowledge, advanced logistics and EXQ Materials' connection to local supply chains, the company is positioned as the premier supplier in the region. Dr. Iwata describes the company as more than just a trade company, rather, one that combines trading with manufacturing capabilities. With a factory in Kumamoto, Iwata is in close proximity to the key stakeholders in Japan, and that advantage is compounded by its drive to innovate and create products in-house.



As the demand for cutting-edge chemical and semiconductor solutions accelerates, Iwata is rising to meet tomorrow's challenges—whether in renewable energy, life sciences or the known unknowns. "Iwata will be a pioneer wherever innovation needs support," says Dr. Iwata. This is what makes Iwata what it is: a firm that empowers industries, turning dreams into reality.

Waquo's Valve Maintenance for a New Paradigm

As Japanese infrastructure ages, the construction industry turns to SMEs to lower risk and cut costs; this includes Waquo, with its highly specific valve and plant maintenance expertise. *By Daniel de Bomford, Cian O'Neill and Paul Mannion*

A titan of the 20th century, it was Japanese construction that built Tokyo and Osaka into what they are today—never-sleeping concrete jungles rising skyward, engineered to endure the region's volatile seismic forces. As the decades have passed, Japanese construction companies find themselves geared toward a new mission, maintaining the many impressive structures to ensure their longevity into the future. The result is what we see today: a highly specialized maintenance sector where everything—from the foundations to the smallest valves—demands precise, technical expertise.

Valves undergoing inspection during customer's plant shutdown.

Waquo is a leading SME in the construction industry, specializing in valve and plant maintenance. With aging infrastructure and the development of new valves for future industrial plants, Waquo is proving to be indispensable. President Kazuhito Wada explains that as new, foreign valves enter the Japanese market, many firms lack the expertise to maintain them. "This is where we stand out—we have the technical capabilities and experience to provide the necessary maintenance for a wide range of valve types, giving us a strong competitive edge in this growing field," Wada says.

He also says that by collaborating with foreign firms, the company gains access to new technologies and continues to build its expertise. At the same time, its partners can expand their presence in Japan and benefit from Waquo's manufacturing guarantees and specialized maintenance services. "Recently, we have been asked to become an agent or a certified repair shop for a number of companies, regardless of their country of origin," he says, adding, "In the past few years, we have become an agent or a licensed factory for several overseas companies." The company is experiencing increasing demand from its overseas customers due to its ability to perform maintenance on all types of valves.

"Our ability to deliver rapid, high-quality repairs gives us a competitive edge."

Kazuhito Wada, president,
Waquo Industry Co., Ltd.

ワコオ工業株式会社

www.waquo.co.jp

In the past, companies buying large numbers of valves had to work with multiple maintenance providers because most providers only specialized in one type of valve.

Wada says that while large companies dominate the industry, SMEs like Waquo play a crucial role, particularly in infrastructure maintenance. "Today, issues such as water leakage and structural deterioration require far more repair work than in previous decades, making maintenance a growing area of demand," he says. Waquo's employees have onsite experience cultivating valuable expertise, while larger firms are often staffed with white-collar workers primarily occupied with administrative tasks. Large companies rely on the specialized skills of SMEs like Waquo for cost-cutting and risk avoidance. Wada says this has allowed the company to carve out its niche in the construction sector and develop unparalleled expertise.

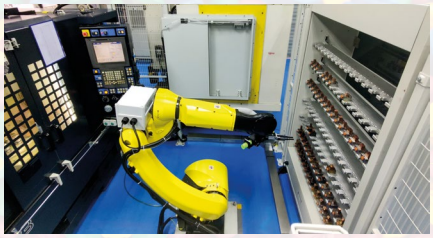
Ultra-high-pressure test bench for extreme condition valve integrity testing.

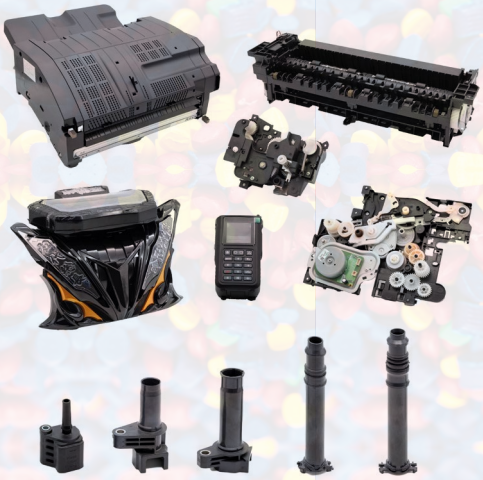
Wada says one of the key reasons companies partner with Waquo is its strict adherence to Japanese Industrial Standards (JIS) for valves and piping operating under high gas pressure. "We are able to demonstrate our technical credibility and build a strong track record, making us a trusted partner in the industry," he says. Furthermore, valve maintenance is a highly specialized field. The professionals working in the space possess deep technical knowledge as valve systems operate under extreme pressure and must be managed with strict protocols and techniques. "This level of expertise is why industrial partners recognize the value of working with us," he explains.

On-site inspection of pump in operation for signs of malfunction or abnormalities.

Wada says there are opportunities for the company abroad, but the domestic market provides the most significant potential. This, he believes, is because Waquo's skills are more urgently needed in Japan. Buildings constructed during the economic boom were made to last, but as they age, the demand for maintenance rapidly increases. He explains, "The industry is shifting its focus to ensure that buildings and infrastructure can be repaired and remain in use for longer."

With sustainability challenges and the shrinking population, Japan's construction industry prioritizes maintaining its engineering marvels, not just as an economic decision but also as an environmental one. Wada believes that with new energy sources like ammonia and hydrogen being developed and a global shift to maintenance, Waquo can become Japan's number one maintenance company. "I am confident that with ambition, innovation and a commitment to quality, we will reach this goal in the years ahead."

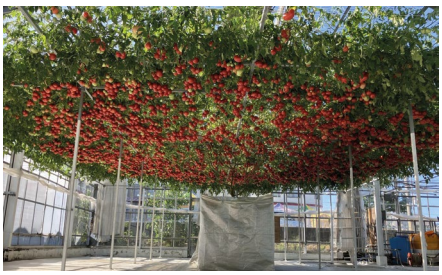




Kyowa's Global Footprint: Precision Manufacturing, Innovation and Sustainability

Kyowa's precision engineering expertise continues to grow, meeting customer needs through its robust international manufacturing capabilities. Now, the company is set to continue its growth in India.

By Daniel de Bomford, Bernard Thompson and Paul Mannion



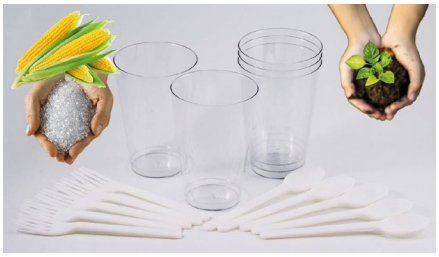

Like a seed that grows in the cracks of concrete, overcoming entrenched norms is the challenge of innovation. In the wake of the green transformation and sustainability changes, technology is rapidly evolving to meet the needs of tomorrow. Founded in 1953, Kyowa has evolved into a specialist in mold design, manufacturing, secondary processing and assembly, with expertise in steel and functional materials. Traditionally, it has been closely aligned with the office automation and automotive industries but is expanding into other industries, such as medical and agriculture. President and CEO Shigeharu Nozawa says that the company has historically avoided relying on a single client, instead opting to serve a diverse customer base and handle a wide range of requests.

The global automotive market is amid a shift to electric vehicles, which Kyowa already anticipated with its Dailan factory, which has produced EV parts for over two years. To meet the growing demand, it is set to launch a new factory in Dailan at the end of 2025, featuring end-to-end clean room production. "Our approach has always been to respond to customer needs, using these opportunities to overcome challenges and advance our technology," Nozawa states.

Kyowa's factories in Japan, China, Vietnam and India highlight its key strengths: international presence, a wealth of experience creating diverse products and the ability to cater to customers with various quality, cost and delivery (QCD) requirements. With EV markets in India expanding as the government promotes domestic production, Kyowa is already creating partnerships with a local manufacturer. "We have already initiated contact, and once their new factory opens, we expect to begin receiving orders from them as well," Nozawa says.

Beyond EVs, Kyowa will be showcasing at K2025 from October 8–15, Dusseldorf and Expo 2025, presenting Reborn with Bioplastics at the Osaka Healthcare Pavilion. "Our goal is to promote sustainable materials, and while we will continue producing conventional plastics, we want to reduce environmental impact when it comes to single-use plastics (SIP)," he explains. Despite the bioplastics market being relatively small, Nozawa expects the demand to grow as society moves toward a sustainable future.

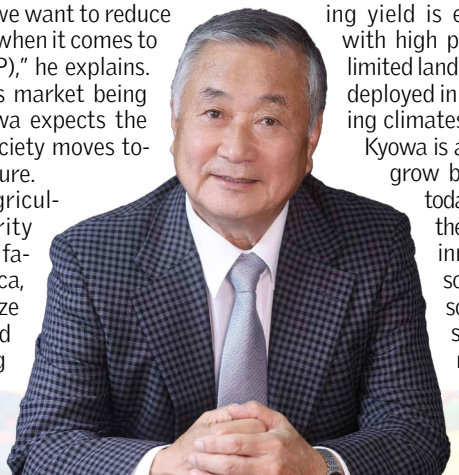
Sustainability in agriculture is another priority for Kyowa. Nozawa's father developed Hyponica, which aims to maximize root growth, as opposed to conventional farming and other hydroponic techniques, which rely on water instead of soil. "With his technique, we were able to grow 16,000 tomatoes from a single seed," Nozawa shares. Maximizing yield is essential in countries with high population density and limited land. Furthermore, it can be deployed in regions with challenging climates and poor soil quality. Kyowa is applying its expertise to grow beyond the concrete of today's technology and meet the needs of tomorrow. Its innovative approach to solving client needs and societal challenges is the seed set to bloom into tomorrow's thriving world.



"Our approach has always been to respond to customer needs."

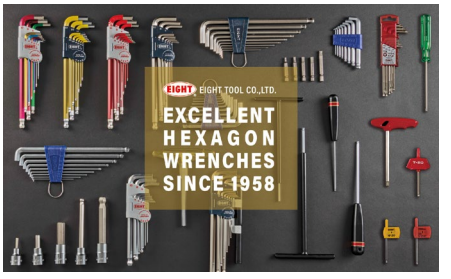
Shigeharu Nozawa, president and CEO, Kyowa Co., Ltd.
https://kyowajpn.co.jp

KYOWA
with you, for you



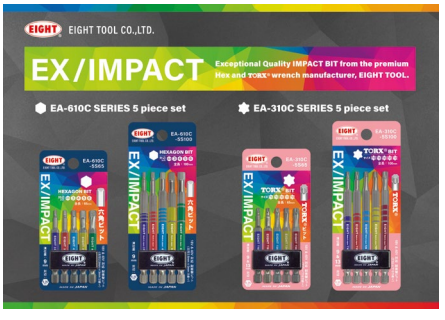
Eight Tool Innovates Precision Hand Tools

Leveraging extensive R&D, Eight Tool continues to elevate hand tools as it continues its international expansion. *By Daniel de Bomford and Cian O'Neill*



High-quality, reliable tools elevate work, improve efficiency and increase safety, despite the tired adage of the craftsman and their tools. Founded in 1958, Eight Tool is a specialized manufacturer of hand tools, and President Yashiro Oka says the company's expertise is unmatched, with approximately 10 percent of its orders being custom orders. "We prioritize incorporating end-user opinions into our production, ensuring that our products truly meet their needs," he says.

Eight Tool has recently launched its EX/IMPACT series after extensive R&D, leveraging a special alloy steel that improves durability and wear resistance. Oka says the company has received many inquiries for bit tools with higher torque performance and greater longevity. He explains, "Customers specifically requested solutions addressing these needs, which led our R&D department to dedicate significant time and effort to developing this product."



For Eight Tool's hex keys and related products, it uses SNCM+V, which is specially developed and cocreated with a domestic steel manufacturer. "This material realizes the ideal balance of hardness and torsional strength that is required for hex keys and hand tools," he says. Tools used with impact and power, or air tools, require different quality materials. Thus, after years of research, the company developed its Impact-Guard-Alloy, which achieves exceptional durability against impact and high torque. The company has applied extensive trial and error to find the ideal temperature for heat treatment to achieve the best performance. "Although hex keys and driver bits may seem to be similar products within the large "tool" category, we consider that the materials and engineering behind them should be entirely different, reflecting the distinct demands of each tool," he says.

Looking ahead, Oka says the company is looking for opportunities in the international market. "Our goal is to expand further wherever there is demand—whether in Europe, Africa or other regions," he explains.

> "Our focus is continuously improving each product to meet customer needs."
>
> **Yasuhiro Oka**, president, Eight Tool Co., Ltd.

EIGHT®

www.okamura-industry.co.jp

Tsukasa Petco Plastics for a Greener Tomorrow

As humanity looks to phase out plastics, Tsukasa Petco is working with industry to create sustainable, green alternatives using advanced plant-based materials. *By Daniel de Bomford, Bernard Thompson and Arthur Menkes*

> "At Tsukasa Petco, we are prioritizing bio-resin and recycling initiatives."
>
> **Eishi Morita**, president, Tsukasa Petco Corporation

Tsukasa Petco Corporation is a Japanese company specializing in the import, export and domestic distribution of compound resin raw materials and products. Due to the global push for carbon neutrality, President Eishi Morita says demand for conventional resins has fallen. "To counterbalance this shift, expanding our focus on environmentally sustainable resins—including bio-resins, recycled resins and recyclable resins—is essential," he says.

Partnering with the software company Sotas, Tsukasa Petco is building an e-commerce platform centered on ASEAN that actively uses IoT technology and AI to analyze data and build a comprehensive product database. "By streamlining this process, we can enhance efficiency and provide faster, more precise solutions to our clients," he explains.

The company is working to utilize aquatic plants like duckweed as a sustainable, innovative resource. The small, highly reproductive plant has higher protein productivity than soybeans, and changing growing conditions allow starch production. As a food, it has well-balanced nutritional value and is attracting attention as a low-impact ingredient. Since biomass cultivation and accumulation are costly, Tsukasa Petco addresses the challenge by selecting species, optimizing the cultivation system and refining growth control. Combining duckweed with microorganisms can convert polysaccharides like starch into biodegradable plastics and create more functional polymer compounds. The company aims to offer sustainable products through resource circulation.

Bioplastic thin films (PHA) derived from starch (A) and seaweed (B) via bacterial fermentation.

Recycled PET resin for primary products and beverage bottles.

The company is working to commercialize polyhydroxyalkanoate (PHA), a plant-derived biodegradable polyester plastic extracted from algae. Morita explains, "This plant-derived biodegradable plastic, produced using algae, offers a sustainable alternative to conventional plastics."

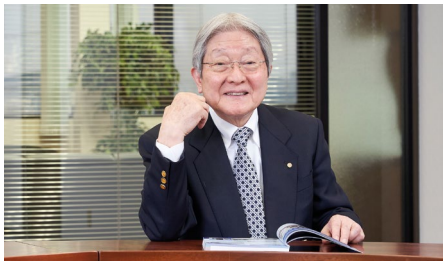
As the company grows, Tsukasa Petco aims to contribute to solving the microplastic challenge and create sustainable food production, helping to realize a more prosperous future.

PETCO

https://t-petco.co.jp/en

Clean Chemical Leads in Cutting-Edge Formulations

Clean Chemical is prioritizing customer needs and the environment, developing advanced, cutting-edge chemical solutions across industries. *By Daniel de Bomford and Bernard Thompson*



> "We want to be a shining example of Japanese companies."
>
> **Shozo Yano**, president, Clean Chemical Co., Ltd.

For over 50 years, chemical manufacturer Clean Chemical has produced groundbreaking cleaning solutions for hospitals, research institutions and industrial clients. President Shozo Yano says that from humble beginnings, the company's CLEAN99L revolutionized detergents as an alkaline cleaning agent without any phosphates. "At the time, it was a groundbreaking product with excellent environmental performance and ease of use, earning high satisfaction from our customers," he says. From there, Clean Chemical developed other detergents for medical and scientific uses.

Yano describes Clean Chemical's strengths as being a pioneering chemical manufacturer that considers environmental impact and is committed to prioritizing the voices of its customers. Furthermore, under Yano's leadership, it has invested in developing talent responsible for the great products that have supported the company's growth.

Since the company's founding, its goal has remained unchanged. Each agent is uniquely tailored to a particular application, reflecting its strength in the production of smaller lots of a more extensive portfolio of products, which sets it apart from its competitors. "Whatever the market, however, we always aim for the same goal: to develop a cleaning agent that has high value and can only be produced by Clean Chemical," Yano explains.

Takatsuki Core Center

Laboratory

With Clean Chemical having been awarded the ISO IEC 17025-2017 certification, the international standard for testing and calibration laboratories, Yano wants to expand the company's customer base to global markets, including Asia, Europe and the United States. By partnering with global manufacturers, Clean Chemical has the means, the talent and the products to supply the world with high-quality products.

CLEAN99
クリーンケミカル株式会社
Clean Chemical Co.,Ltd.

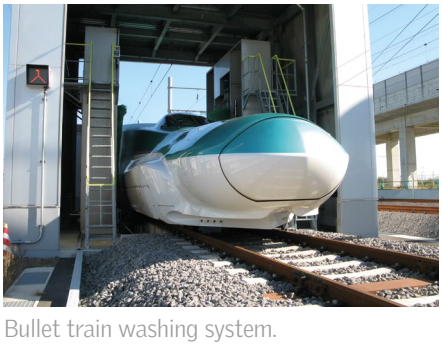
www.cleanchemical.co.jp/en

JCW Brings Innovation to Industrial Washing

Japan Car Wash leverages agile, continuous improvement to create new efficient methods of cleaning machinery and is looking to go global. *By Daniel de Bomford and Cian O'Neill*

Japan Car Wash (JCW) Nihon Sharyou Senjouki is a provider of wash solutions for a range of applications, from large train carriages to small dishwashing machines. President Naohiro Masuda says that meeting the varied and stringent requirements of the company's clients requires extensive R&D and customization. "Working with large-scale clients comes with higher quality and specification requirements, as these companies demand precision, efficiency and durability in their equipment," he says.

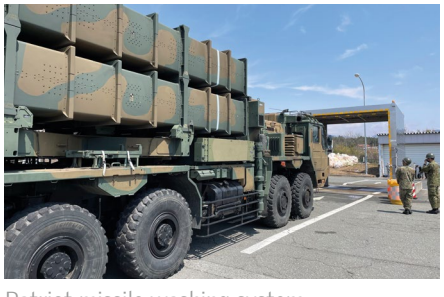
The company's innovative NSW-5 system recycles water and makes it usable for washing. These two functions require handling different types of contaminated water. Masuda explains, "One of our core strengths lies in our ability to accurately identify the type of contamination and apply the most appropriate recycling system to ensure effective purification." He says the company's innovations are developed and refined through years of experience and trial and error. The company prioritizes agility, with Masuda declaring speed to be the most important aspect of R&D.



Bullet train washing system.

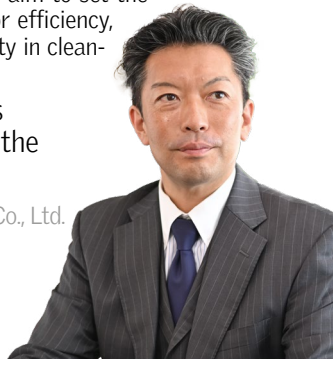
That agility extends to JCW's decision-making, with Masuda describing Japanese companies as slow to make decisions, often resulting in missed opportunities. With an eye on the international market, he says he hopes the company learns from Western business practices. "By combining the efficiency and speed of Western business practices with Japanese craftsmanship and precision, we believe we can develop a stronger and more competitive business model for international markets," he explains.

With a company vision to become known for its ability to wash anything, regardless of the medium, JCW will continue to introduce new technologies and techniques into its processes, becoming an exemplar of continuous improvement. Masuda shares his goal, "We aim to set the industry standard for efficiency, innovation and quality in cleaning technology."



Patriot missile washing system.

> "Innovation and continuous improvement have been at the heart of our company."
>
> **Naohiro Masuda**, president, JCW Co., Ltd.



MADE IN JCW. MADE IN TOKYO. MAKE IN INDIA.

www.ns-jcw.co.jp/en