

Japanese SMEs to Shape the Future of Global Manufacturing

In the intricate tapestry of Japan's manufacturing industry, SMEs play a pivotal role. These companies, often family-owned or founded on traditional principles, face a unique set of challenges and opportunities in the ever-evolving global landscape. From maintaining leadership in niche markets to navigating demographic shifts and global supply chain disruptions, Japanese SMEs exemplify resilience and innovation.

Hikaru Nakamura, President of Penstone Corporation – an auto parts manufacturer – emphasizes the enduring strengths of Japanese SMEs, stating: "Japanese companies have many advantages, including high-quality products, loyalty, and good negotiating abilities." These attributes have solidified Japanese firms as trusted suppliers, particularly within the automotive sector.

Takaya Hirano, President of Hirano Seisakusho – a metals maker – concurs, highlighting the importance of understanding the unique demands of the Japanese market. He explains: "The strength of Japanese companies is their ability to understand the needs of the Japanese market, especially in terms of quality." This insight propels Japanese SMEs to maintain their leadership despite facing price competition from regional counterparts.

Toshiaki Matoba, President and CEO of Matex – a key supplier for Japan's automotive industry – brings attention to the demographic challenges confronting Japanese businesses.

"Japan is an aging society, prompting a lack of labor force and a shrinking domestic market," he warns. To counteract these trends, Mr. Matoba stresses the significance of expanding overseas operations while leveraging technological expertise. Matex's experience in operating factories abroad positions the company to navigate labor shortages and explore new markets effectively.

Jiro Kono, President of Nippon Tanshi, which specializes in terminals and connectors, echoes concerns about global supply chain disruptions. He emphasizes the need for supplier diversification to mitigate risks posed by events like the COVID-19 pandemic and geopolitical tensions. Mr. Kono observes a trend towards domestic production driven by the desire for supply stability and reduced lead times. "Japanese companies", he notes, "are reevaluating overseas risks and investing more in domestic manufacturing."

Supporting these perspectives is the reality of Japan's manufacturing landscape. Despite facing intense competition from lower-cost manufacturing hubs, Japanese SMEs maintain their edge through a focus on quality, innovation, and specialization. These companies often excel in producing high-value, precision-engineered components essential for Japan's renowned automotive and electronics industries.

Kentaro Inukai, President of Pana Chemical, provides a unique perspective rooted in the Japanese business philosophy. He emphasizes

the value of stability and customer-centricity over sheer scale, explaining: "Our focus isn't on expanding the scale of operations. We find value as a company by having a solid foundation to provide our clients with business merits." Pana Chemical's approach underscores the symbiotic relationship between SMEs and their clients, prioritizing long-term partnerships over rapid expansion.

Despite the challenges posed by an aging population, labor shortages, and global uncertainties, Japanese SMEs continue to thrive by embracing innovation and adapting to market dynamics. They play a vital role in Japan's economic ecosystem, driving technological advancement and maintaining the country's reputation for excellence in manufacturing.

Japan's SMEs remain at the forefront of innovation, leveraging their agility and expertise to seize new opportunities. With a commitment to quality and a tradition of craftsmanship, Japanese SMEs in manufacturing are poised to overcome challenges and chart a path towards sustainable growth in the global marketplace. As they navigate through challenges and capitalize on opportunities, these companies continue to uphold Japan's reputation for excellence in craftsmanship. With a blend of traditional values and forward-thinking strategies, Japanese SMEs stand poised to shape the future of manufacturing both domestically and internationally.

Hirano Seisakusho: Navigating the Future of Precision Manufacturing

Hirano Seisakusho is leading innovation in sustainable machinery, focusing on EV mobility and carbon-neutral products, while expanding its global presence.



"We were one of the first companies to actually produce components for EVs."

Takaya Hirano, President, Hirano Seisakusho

Amid the rapid global shift towards more sustainable modes of transportation and stricter emissions regulations, Hirano Seisakusho is strategically positioning itself to meet the evolving demands of industry.

Founded in 1961 in Iwate Prefecture, the company has distinguished itself through an integrated produc-

tion system that spans procurement, processing, assembly, inspection, and shipping, primarily focusing on engine parts for construction machinery, large trucks, and semiconductor manufacturing equipment.



Capacity case for construction machinery

Under the leadership of President Takaya Hirano, Hirano Seisakusho is not just surviving but thriving amidst the challenges of a weaker yen and rising labor costs. "We see ourselves as a manufacturing company with a hybrid manufacturing system, with multiple locations in Asia and Japan," Mr.

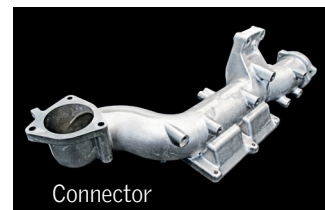
Hirano asserts, highlighting the company's strategic advantage in global sourcing and manufacturing.

Anticipating the industry's pivot to electric vehicles (EVs) and stricter emissions regulations, Hirano Seisakusho ventured into developing motor cases for EVs nearly 20 years ago. "We have absolute confidence in manufacturing EV-related components and emissions regulation-related parts," Mr. Hirano proudly notes, showcasing the company's innovative edge.



Oil cooler cover

The president's vision extends beyond immediate technologi-



Connector

cal adaptations. "We intend to continue to lead this company to achieve international growth," he remarks, emphasizing the importance of diversifying the company's workforce to include more foreign employees and broadening its global outlook, with expansion plans in the ASEAN region, including Vietnam.

While navigating this era of transformation, Hirano Seisakusho has established itself as a leader in meeting niche customer needs while embracing the future of manufacturing – integrating machine processing technology, forward-thinking strategies, and internationalization as core competencies focused on "the environment" and a "global approach".

HIRANO

www.hirano-ss.co.jp

Penstone's Technology Enables the Improvement of Vehicle Quality

Penstone's technology allows it to create lightweight and compact products for automotive clients, ranging from rearview mirrors (RVM) to assembled glass (A/G), with the company focusing on further expansion in Asia in the future.

One relatively overlooked aspect in the sustainability revolution is the necessity for lightweight and compact components. This need is particularly pronounced in the automotive industry. The extra weight of just one gram translates to an increase in the energy required for vehicle movement, making the transition to electric vehicles (EVs) demand ultra-lightweight components. One company offering a compact solution in the realm of RVM is Japan's Penstone Corporation.



Automotive assembled glass

The company, whose predecessor was established in 1918, specializes in the manufacturing of automotive components, from A/G to RVM. Penstone is a full-service supplier with a seamless process from design and development to manufacturing. It possesses essential technologies for processes required in the manufacturing of A/G and RVMs, including resin molding, painting, mirror fabrication, lighting parts manufacturing, power unit manufacturing, and total assembly processes. With the combination of these technologies, Penstone provides products to the world.

According to Hikaru Nakamura, the company's president, Penstone aligns its processes from the assembly stage, ensuring that the delivery is perfectly synchronized with the needs of clients. This is particularly crucial in the automotive sector, where manufacturing lines can be highly complex. Penstone, drawing on Japan's long

tradition, possesses the ability to supply high-quality products and build strong trust relationships with automotive manufacturers. This is reflected in its client list. Penstone not only supplies 100% of Mazda's RVM and A/G products but also holds a share in the RVM market for Suzuki, Honda, Mitsubishi and Nissan.

The core strength of the company lies in its products. Penstone strives to produce components of the smallest possible size while meeting the needs of its customers. Mr. Nakamura says: "We possess the technology to produce these components at the minimum size and we have the technology to make the products lightweight."

For example, the RVM developed for the popular Mazda SUV, the CX-5, not only provides high-performance visibility under harsh conditions but is also a lightweight and cost-effective product owing to improved materials and streamlined production processes. This product, developed over a period of more than two years, reflects its quality through numerous adjustments in the production process, ultimately delivering maximum efficiency.

The dimensions of the mirrors used in RVMs are regulated by laws and regulations, and clients develop minimal styling to ensure compliance and satisfaction with those requirements. Some RVMs contain power units driven by motors, and Penstone offers added value to clients by developing these units minimizing size as much as possible. The company considers how to align the concept of its products with client expectations from the early stages, ensuring that it meets the needs and desires of the clients.



Taijiro Ishizaki,
Representative Director
& President,
Ishizaki Holdings Corporation

With a history spanning over 100 years, Ishizaki Group transitioned to a holding company structure in 2022. Under its umbrella are Penstone, which deals with automotive components, and Ishizaki Honten, which is involved in handling building materials.



Automation for synchronized production

In all Ishizaki Group production processes, the business is dedicated to aligning work styles with customers and focusing on enabling swift decision-making for the clients. Taijiro Ishizaki, President and Representative Director of Ishizaki Holdings, states: "As Ishizaki Group, we can promptly support business, thereby further enhancing our contribution to clients."

Penstone has established factories in Asia, Mexico, and the United States, achieving expansion of its business. The company ensures that similar quality management systems are adopted in its overseas production facilities, guaranteeing the same level of quality as those used in Japan. Furthermore, the company is planning for further growth in the Asian market and is actively seeking local partners with regional market knowledge to support expansion efforts.

This partnership style can be observed in Penstone's joint ven-



Hikaru Nakamura,
Representative Director,
President & CEO,
Penstone Corporation

ture in India. The local partner assists Penstone in understanding the region's talent structure and requirements. In return, Penstone provides technology and expertise for creating lightweight and compact products, thereby facilitating the development of the partner.

The overall mission of Ishizaki Group is to realize the motto "UNIQUE x SPACE", not only in the near future but also for the next 100 years. This entails the development of unique products and services that leave a lasting impression on clients and the creation of workspaces where employees can truly work comfortably. Mr. Ishizaki expresses his thoughts on this by stating: "I believe that we will continue to grow in realizing this philosophy in the next 10 years. That's why we present such a vision."



On the other hand, Mr. Nakamura's goal for Penstone is to continue manufacturing high-performance mirrors that make both car manufacturers and drivers happy and safe. As the automotive industry undergoes the transformation to electric vehicles, Penstone is strategically positioned to manufacture traditional mirrors that remain essential for vehicle safety, alongside the development of future electric mirrors.



Rearview mirrors

Nippon Tanshi to Focus on Automotive Sector

In an increasingly challenging environment, the shift to electric vehicles (EVs) and hybrid vehicles offers a significant opportunity for the internationally-recognized firm, which specializes in the production of high-voltage terminals and prides itself on quality and reliability.

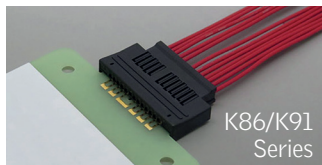


"We take pride and pleasure in manufacturing our products and have worked hard to earn the trust of our customers."

Jiro Kono, President, Nippon Tanshi Co., Ltd.

A connector manufacturer first established in 1960, Nippon Tanshi's products are used in a variety of industries, including home appliances, office automation equipment, automobiles and communication devices.

Though he describes the shortage of human resources as a "major management challenge", company president Jiro Kono is optimistic about the future.



"The automotive market is currently undergoing a once-in-a-century transformation," he says. "And we will continue to focus our attention there. At the same time, we're also planning our business portfolio for other markets such as the consumer electronics market, which includes sanitary products like warm-water bidets or major home appliances like washing machines."

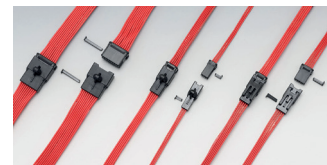
Regarding the automotive market, key products include the

"@SeesawEdge", also known as K86 or K91, a card-edge connector that moves like a seesaw with the board; and the K87 series, a product based on the concept of integrating connectors, which eliminates the need for wire-to-wire connectors, thereby significantly reducing costs.



The acquisition of new premises located on the former site of a brewery, meanwhile, will afford the company greater space to produce large high-voltage components for EVs, as well as the opportunity to "make a positive contribution to the local environment and community".

With existing offices in Chicago, Bangkok and China, Mr. Kono is also seeking to expand into high-population, rapid-growth markets and cites India as a potential target.



K89 Series

Closer to home, his ambitions are more modest. "Our ultimate goal," he states, "is to continue to build even stronger relationships with our stakeholders, including local residents, students and those who are committed to sustainable management."



www.nippon-tanshi.com/en

Matex: Pioneering Precision Gears for the Modern World



"We're shaping the future by innovating in precision gears and robotics, ensuring Matex's lasting legacy."

Toshiaki Matoba, President, Matex Co., Ltd.

In a global economy where cost savings are paramount, efficient components have become more important than ever. One of the companies pushing this increase in efficiency is Japanese firm Matex.

Founded in 1921, Matex specializes in designing and manufacturing high-efficiency

Matex's highly efficient planetary gear technology is shaping the future of robotics.



Designing

planetary gear reducers and injection molded plastic. It has incorporated unique innovations into the structure of its gears, allowing them to transmit power more effectively.

These gears have increased usage in today's world, gaining traction in the electric vehicle (EV) and robotics sectors. Indeed, Matex is collaborating with Sumitomo Heavy Industries to develop precision gears for robots with lightweight and high reduction ratios using plastic or resin. As fifth-generation President Toshiaki Matoba explains,

household robots must be lightweight for the safety of humans.

In the EV sector, vehicles are using more motors and reduction gears to increase comfort, and Matex has secured orders from a renowned European automobile manufacturer for its gear reducers.



Overseas expansion

The company can also assemble products in-house. As Mr. Matoba says: "We create a unit or module of the device, enabling us to deliver an all-in-one service, from design to mass production."



Mass production

The company's growth has enabled it to expand its bases into the Philippines and wider Asia, and as its production capacity increases it is actively seeking international partners who can benefit from its cost-effective gear reducers.



www.matex-japan.com/e

Pana Chemical Targeting Southeast Asia and Beyond for International Expansion

With 2,000 clients and counting, plastic recycling company Pana Chemical is looking to develop its overseas sales channels for its J-EPS ingots and high-quality resource plastics.

Having started life as a distributor associated with Matsushita Denko (now Panasonic), Pana Chemical switched its focus to plastic recycling in the 1970s following a chance discovery at the Tsukiji Market.

Current president, Kentaro Inukai, picks up the thread: "While exploring Tsukiji Market, my father observed an area emitting black smoke into the air. Plastic, he surmised, was being burned. Recognizing an opportunity, he developed machinery employing a low-grade heat exchange mechanism capable of melting styrofoam and transforming it into byproducts."

This, as Mr. Inukai explains, was at a time when the concept of recycling had yet to take root. "Our motivation," he confirms, "was to devise a practical solution to combat air and industrial pollution, rooted in a sustainable and profitable business model with solid revenues and sales."

Today, the company collects on average 3,000 metric tons of EPS ingots monthly, meaning it commands an impressive 80% domestic market share in the sector.

With no aspirations to become a corporate giant, however, collaboration both at home and overseas is key.

As well as boasting some 2,000 clients, the company has also established partnerships with more than 50 recycling collaborators globally.

Not only that, but the relationship enjoyed by these parties is unique. Mr. Inukai again: "We sell machines to our partners initially, after which we become clients by purchasing the byproducts from them, a mutually beneficial state of affairs which has endured for generations, with certain overseas partnerships spanning over 40 years."

If the company excels in resource plastic recycling, one of Pana Chemical's core responsibilities remains to promote the J-EPS Recycling System, a business model originating in



"My goal is to offer solutions to our clients."

Kentaro Inukai,
President,
Pana Chemical Co., Ltd.



Tokyo's Tsukiji Market and a pile of fish boxes



Styrofoam recycling processor



Styrofoam recycled products



J-EPS recycling

J-EPS recycling EPS ingot

Japan that revolves around the mechanical breakdown of styrofoam into ingots.

These by-products, as Mr. Inukai explains, can be used to create high-quality raw materials for

use on large-scale productions: "Our approach, which involves compressing styrofoam with heat and using it to make EPS ingots, challenges the notion that certain items should be deemed non-recyclable. Indeed, the J-EPS Association, which we founded in 2022, was established in response to international calls for a ban on the material."

The company also offers its customers a variety of plastic recycling equipment under the same scheme as its styrofoam recycling transactions. Similar to styrofoam recycling, Pana Chemical purchases the quality recycled plastic produced by the processing machines.

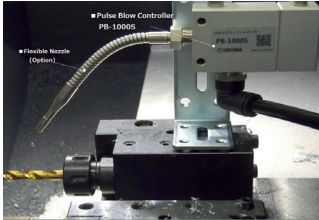
Nor, for what it's worth, are Pana Chemical's ambitions limited solely to domestic expansion. "In the coming decade," Mr. Inukai states, "our primary focus will be on Southeast Asia. Additionally, we have received business offers from Lithuania, Spain, Turkey and Mexico."

According to Mr. Inukai, the company's ultimate aim is to expand its overseas exports of recycled plastic, which currently total 7,000 tons per month including EPS ingots, to various regions. "Our target markets are countries that need recycled plastic. In short, there are plenty of opportunities to expand our business over the next 20 years."

As befits a company that is comfortable swimming against the tide, Mr. Inukai's overseas strategy is not based on dominating foreign markets, but rather on fostering collaboration and sharing Pana Chemical's expertise and methodologies. "My goal is to solidify the recycling market domestically," he says, "but also to establish sustainable overseas businesses through mutual growth and knowledge exchange."

Chiyoda Tsusho: Solving Industry Challenges with Tailored Solutions

Chiyoda Tsusho specializes in industrial piping for compressed air in the automotive industry, working collaboratively with customers to create bespoke products.



Pulse blow controller

Customer needs often drive business innovation. Established in 1971, Chiyoda Tsusho is a Japanese manufacturer of industrial piping for compressed air, with a tailor-made approach focused on client demands that has placed it at the forefront of the automotive industry.

With such success in the automotive industry, the company has been exploring expanding its products for use in the plastic injection molding, welding, and robotics industries.

What sets Chiyoda Tsusho apart is its unique business model. President of the company, Hidetoshi Ishii, points out: "Our product line is specialized and tailor-made for our customers. Rather than using a standardized production approach, we use the opposite method by being super specialized and basing our products on customers' requests." Mr. Ishii explains that the firm operates on a case-by-case approach whereby the customer will come to them with a problem and the company will create a prototype. This trial-and-error and hand-in-hand tailored approach is what gives the company its competitive edge. Mr. Ishii points out that if the solution

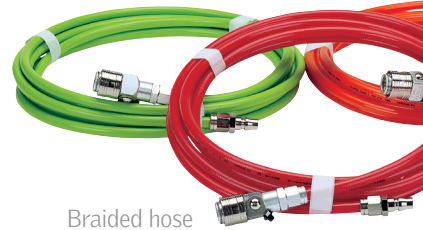
works well for the customer, the product is added to the company portfolio as it can work for others as well.

One of Chiyoda Tsusho's flagship products which was also originally conceived from a customer request is the Low Friction Tubing TE - LF. Released late last year, the tubing uses a special polyurethane material that greatly reduces the frictional resistance of the tube surface and suppresses the wear of the piping - particularly useful for moving parts such as those used in robotics. Mr. Ishii

points out that what makes the company's tubes and fittings stand out amongst its competitors is "the perfor-



Tube and fittings



Braided hose

mance, durability, and versatility of our advanced materials."

Whilst Chiyoda Tsusho exports products globally to Asia, China, and the United States, the company's main focus right



Mega flow X coupling

now is the domestic market. However, given the Japanese firm's personalized approach to business, Mr. Ishii does not rule out expanding product exports if the opportunity were to present itself.

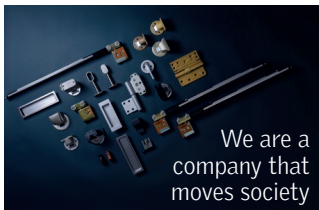


CHIYODA

www.chiyoda-pneumatic.co.jp

Nakao Seisakusho: Pioneering Change in Global Manufacturing

Nakao Seisakusho, a beacon in Japan's manufacturing industry, navigates global challenges with innovative solutions, eyeing international and technological expansion.



We are a company that moves society

In the ever-evolving landscape of Japanese manufacturing, Nakao Seisakusho stands as a pivotal player. President Hiroyuki Nakao discusses its strategic response to global economic shifts and demographic challenges, positioning the company for international expansion.

Mr. Nakao reflects on the resilience of the company's construction business during COVID-19, emphasizing a stable domestic supply despite disruptions in foreign markets. "We maintained a



"Quality expectations in markets are rising; understanding customer needs is vital to success."

Hiroyuki Nakao,
President,
Nakao Seisakusho Co., Ltd.

stable supply, but our local production in China faced shutdowns, affecting supply stability," he says. This led to proactive strategies, like advanced product stocking, showcasing the company's agility.

Japan's aging population presents unique challenges and opportunities. Nakao Seisakusho adapts by focusing on relevant market segments, such as nursing homes. "We see business opportunities in the demographic shift," Mr. Nakao notes.

Plans are underway to establish operations in Southeast Asia, with

Vietnam a potential hub. "Vietnam offers proximity to other Southeast Asian markets and existing Japanese business networks," he states.

Partnerships are crucial in Nakao Seisakusho's strategy, helping the company to understand and penetrate new markets. Mr. Nakao aims to

enhance brand awareness and strategically position the firm's products globally, emphasizing focus on products like the Shuttle Closer



Magnet Stopper

like sliding doors and door stoppers, driven by strong R&D. The Shuttle Closer, a noise-reducing door product, exemplifies Nakao Seisakusho's commitment to innovation and quality.

Looking forward, Mr. Nakao envisions a future centered not on profit margins but on the quality of work and employee satisfaction. "Quality and satisfaction among customers and employees are our priority," he asserts, adding that Nakao Seisakusho aims to lead through innovation and adaptability in a changing world.



www.nakaoss.com