Japan's monozukuri ready to shine once again

Global events such as the covid-19 pandemic, the war in Ukraine and the U.S.-China decoupling have forced companies to rethink and diversify their supply chains as they seek more reliability. Japanese firms are known for their reliability and advanced technology, and thus are in an interesting position due to the weakened yen, with observers believing this is a very unique opportunity for Japanese *monozukuri* to shine once again.

"The covid-19 pandemic and U.S.-China decoupling have created chaos for overseas companies. However, Japanese companies have previously experienced similar disruptions caused by events like the Lehman Shock and the burst of the economic bubble," says Yoshinori Abe, President of EIWA Corporation, a trading firm specializing in inspection, measurement and analysis equipment. "These experiences have led Japanese companies to develop countermeasures to navigate such challenges, while the depreciation of the yen has prompted many companies to relocate their production bases back to Japan."

Monozukuri – the manufacturing philosophy focusing on craftsmanship and constant innovation – is another factor that sets Japanese companies apart from regional competitors. "At the heart of Japanese *monozukuri* lies a commitment to achieving the highest levels of quality and reliability," states Naoki Matsumoto, President of Matsumoto Kosan, a manufacturer of high-precision parts for the automotives, medical and telecommunications industries. "Japan's unwavering dedication to producing one-of-a-kind, top-notch products has garnered significant global recognition, exemplified by the success of products like the iPhone [which is made up of many Japanese parts]. When global companies meticulously compare and evaluate products from Japan, China, and India, they consistently choose Japanese offerings for their exceptional quality and reliability."

Also important to the Japanese manufacturing philosophy are the concepts of *gemba* and *kaizen*, as highlighted by Nobuo Okita, President of Okita Iron Works. "*Gemba*, which is a Japanese word that translates to 'the place where action happens', combines quality control, customer satisfaction, and corporate culture into a melting pot symbolizing Japanese workplaces. Regarding the capabilities of *gemba*, I think that the Japanese people are very good at pursuing improvements, under the *kaizen* philosophy of continual improvement. In terms of quality control, Japanese people tend to raise the bar for quality further than any other country on the planet, beyond any standard criteria required."

One focus of Maintech's *monozukuri* is its Dryer Section Passivation (DSP) Technology for paper manufacturing, which the company aims to make the global standard in line with its ambition to expand internationally. "We have some competitors in the U.S. and Europe who just copied our technology. However, their chemical performance is not so good. Right now, we have over 800 applications across the world. We plan to increase the figure in Asia, Europe and North America and expect to reach the 1,000 mark in a few years," says company president Hiroshi Sekiya. "With the expansion of the e-commerce business, the demand for corrugated packaging has been increasing worldwide and is expected to increase by 24.5% in the next 10 years. In the U.S. quite a few paper machines have converted from printing and writing grades to paperboard. I believe that this global trend will definitely give us many opportunities to expand our DSP business worldwide."

One of the world's leading high-tension washer manufacturers, Ono Manufacturing is also expanding its international presence and plans to better serve the North American market with the establishment of a new manufacturing facility. "Producing washers in the U.S. is one of my personal dreams and it is finally coming true," says chairman Mamoru Ono. "We are aiming for mass production that meets American standards. The first step is to bring new AIDA press machinery, and currently, we are planning on bringing just a single washer. This is because there is no equivalent machine in the American market. We will use this AIDA press machine to produce products that meet U.S. specifications."

Harnessing 3D tech to the Max

A specialist winch manufacturer, Maxpull is using CAD technology to provide an enhanced customer experience.



New BMW-Air series with many advantages

The Japanese manufacturer Maxpull has made it easier than ever for customers to get the full lowdown on its world-class industrial winches.

Visitors to the company's website can now peruse 3D, interactive CAD representations of its winches, with both exterior and interior views of products. Created using Fujitsu's iCAD platform, the cutting-edge feature also allows graphics to be downloaded on files compatible with a range of design software.

"This epoch-making system enables you to easily and intuitively view and operate 3D data on a smartphone, tablet or PC," says Maxpull's president, Koichi Ono. "Our sales staff can easily explain the winch's internal structure without bringing the actual machine to the customer and disassembling it on the spot."

Accessing the new tool requires no prior registration, Mr. Ono adds: "We felt that for true user-friendliness, we needed to cut out the time spent logging in or signing up before obtaining product data."



Industry-first feature with 3D views of the winch

Among Maxpull's wide variety of winches, a stand-out item is the updated BMW Single-Phase 100V. Boasting enhanced compactness, it can be installed in narrow spaces; in addition, the winch now has a longer continuous operating time. "Since



CAD files compatible with a wide range of design software

its launch last year, sales have been steadily increasing," Mr. Ono reveals.

Such expertly-crafted products have made Maxpull a domestic leader – and the company has a growing global reach, too, aided by its presence on the French online B2B marketplace Virtual Expo and its participation in international trade fairs in several countries. Furthermore, it is preparing to hold its own exhibition, in an online-offline format.



"We aim to make this service easily accessible for customers."

Koichi Ono, President, Maxpull Machinery & Engineering Co., Ltd.

"With the pandemic, the culture has changed from offline to online," Mr. Ono says. "However, if the information you need requires all five senses, an online exhibition isn't ideal. What's more, on-thespot negotiations can be slower. That's why we're planning a hybrid exhibition in which we select and invite visitors interested in an online event to attend in person as our main target."



Maintech working with clients to create platform for the future of eco paper-making

Maintech aims to ensure its Dryer Section Passivation (DSP) Technology becomes the global standard in recycled paper and paperboard manufacturing.

While the recycling business is generally perceived as an industry that was established and has grown over the past few decades, Japan has in fact been a leader in papermaking and recycling for some 300 years.

Japanese paper production has been consistently among the top five in the world, while recycled paper accounts for two-thirds of the raw materials used to produce new paper and paperboard products in Japan. Against this backdrop, Maintech, which supplies solutions to improve the productivity of paper mills and the quality of recycled paper, has shone. The company now aims to expand its DSP (Dryer Section Passivation) Technology globally.

"Japan is a global leader when it comes to paper recycling. Moreover, I believe Japan will continue to be a leader. The paper recycling business was established here in Japan in the Edo era," says Maintech president Hiroshi Sekiya. "Therefore, the paper recycling culture has been historically rooted in the Japanese lifestyle for more than 300 years. I believe that the recycled paper utilization rate will continue to be high." Maintech's DSP technology can be mainly used and particularly beneficial in producing paper products using recovered paper.

The paper machine consists of three main sections: the forming section, the press section, and finally the dryer section, where the wet paper sheet is dried with steam-heated cylinders. DSP is used in the dryer section, helping to prevent deposition from building up on the paper machine (dryer cylinders, dryer fabrics) surface due to unwanted materials and substances, such as packing tape, labels, ink, etc., present in the recovered paper.

"Paper can often have several defects due to this deposition. When it comes to the use of paperboard at cardboard-making factories, any paper with a defect size of over 10mm is never accepted because it would ruin the appearance of the cardboard box," explains Mr. Sekiya. "Therefore, the paper machine operators must eliminate the production of defective paper in the mill before shipping. This



"We have sold over 800 units across the world. We plan to increase that number in Asia, Europe and North America."

Hiroshi Sekiya, President, Maintech Co., Ltd. https://maintech.co.jp



defective paper often goes back to the pulping process as raw materials, which reduces productivity and requires more energy to manufacture the same amount of paper. This is the main reason why most of the recycling paperboard mills have introduced our DSP in Japan."

"In Asia and Europe, they have been introducing cutting-edge paper machines which can run at high speeds, running almost twice as fast as Japanese equipment," adds the Maintech president. "Therefore, even small deposits on the paper machine can cause sheet break problems down the line and reduce productivity. This is one of the reasons why our DSP sells so well outside of Japan." Utilization of DSP, therefore, can ensure reduced energy consumption, improved paper quality, increased productivity and savings on labor costs. It's no wonder then that DSP has already proved popular among paper mills worldwide.



Having secured a 100% share of the domestic market and market shares of between 60 and 70% in China and regions of Southeast Asia, Maintech's goal is to expand its DSP solutions in Europe and North America. While cracking these markets can be difficult for a relatively unknown Japanese SME, Maintech has started to make headway thanks to a growing reputation on both sides of the Atlantic and has now sold more than 50 units of DSP in the U.S. and Europe. "Though there are some U.S. and European competitors, comparative tests to date have proven that our authentic DSP technology with the highest track record is the most cost-effective solution," says the company president. "Right now, we have sold over 800 units across the world. We plan to increase that number in Asia, Europe and North America and expect to reach the 1.000 mark in a few years."



DSP applied to dryer cylinder

To ensure the same quality of service as in Japan, Maintech also provides equipment maintenance services and technical services in China, Europe, and the U.S., having an office in Dusseldorf to serve European clients, a subsidiary company and five offices in China, while its new office in Atlanta is set to open this year to cater to a growing base of customers in North America.

Moreover, Maintech has also developed Smart Papyrus. This system has been developed using sensing IoT to digitize deposit levels on the paper machine and AI technologies to manufacture recycled paper more efficiently and effectively. The Smart Papyrus Ver.1, offering a surveillance camera to watch dryer section deposition and a DSP chemical dosage management system, was followed by the recently launched Smart Papyrus 1.0, which boasts a defect categorization system. "Our Smart Papyrus Ver.1 focuses on the dryer section, while Smart Papyrus 1.0 categorizes the defects," Mr. Sekiya adds. "When we analyzed the defects, we realized that the drver section was in perfect condition thanks to our DSP. Most of the defects came from other parts. That is why we have expanded our field to the press section and the forming section as well as the wet-end section." Currently under development, Smart Papyrus 2.0 will come with a more sophisticated system to anticipate defect generation not only in the forming press and dryer sections but also in stock preparation (paper material process), using Big Data and IoT.

Looking towards the longer-term future, Mr. Sekiya reveals, "Right now, our DSP is just an Asian standard. My first goal is to expand our DSP business worldwide and to make it the global standard for recycled paper manufacturing. My second goal is to develop our Smart Papyrus technology with our customers to create a platform for the future of eco paper-making."

Championing safety and innovation: the remarkable journey of the world's leading high-tension washer manufacturer

With a history dating back to a single man's blacksmith shop in 1928, Ono looks forward to its centenary.

In a time of global uncertainty and shifting market dynamics, the Japanese manufacturing industry finds itself at a crossroads. The COVID-19 pandemic and geopolitical tensions have disrupted supply chains, prompting multinational corporations to seek reliability and diversification. Amidst this backdrop, Ono Manufacturing continues to build on its own journey, with the United States an important part of that.



"When things are going well, people are happy, but when things are bad, they try new things to discover solutions," says company chairman Mamoru Ono. "We tried many things and listened keenly to exactly what our customers wanted."

Multinationals seek to reduce risk in their supply chains, where Japan's legacy of trustworthiness, reliability, and advanced technology comes to the fore. And from being a tier-two supplier for Mitsubishi Motors to becoming a leading player in the market, Ono's resilience during Japan's "Lost Decades" led to significant growth.

"The bubble economy burst in the 1990s, and the following years were known as the Lost Decades," says company chairman Mamoru Ono. "In terms of our business, nothing was lost, they were of great benefit to us."

Adaptability is key, and the company's evolution is emblematic of its ability to respond to market shifts. From exporting via major trading companies to working directly with bolt manufacturers, Ono navigated changing strategies to maintain a consistent presence in the U.S. market, understanding the value of tailored services.

"We made significant investments in facilities in a unique manner, so from our perspective, the Lost Decades were actually 20 hard-working years," Mr. Ono explains. "Without them, our company would have continued blissfully in the economic bubble without making any investments or innovations."

Localization is another means of building for the next generation with plans to establish local production in the U.S. This venture aims to supply products that meet U.S. specifications, aligning with the company's strategy of combining mass production with specialized, value-added production, despite smaller lots yielding lower profits. Balance is vital.

"We have exported to over 20 countries worldwide, including unique examples in Saudi Arabia and Thailand, and all 50 U.S. states, a country I hold great affection for. This is something I hope will be reciprocated one day by people there for my company."

Ono's success over the years can be attributed to its ability to provide high-quality products consistently, and the chairman reflects on some achievements with pride.

"One project that stands out is the Aqua-Line in Tokyo Bay, with our elastic washers likely crucial in safeguarding it during the 2011 Japan Earthquake and Tsunami. I'm also proud of our



"As the top market share company for hightension washers, we will continue to meet the expectations of society and constantly challenge new goals."

Mamoru Ono, Chairman, ONO MFG Co., Ltd.

involvement in the construction of the Great Seto Bridge," he concludes, acknowledging the importance of the younger generation to take the company's success forward with modern know-how and technology.



Car part specialists Yuhara targeting the U.S. market

A go-to partner for major clients in the automotive sector and beyond, the Japanese manufacturer is out to grow its global sales.

Boasting nearly 75 years of experience, Yuhara Manufacturing specializes in premium-quality, state-of-the-art car parts, while also delivering world-class components used by manufacturers outside the automobile industry.

"At the core of our technological prowess lies our expertise in welding, cutting, and metal deforming, with a particular focus on metal bending," says the Japanese firm's president, Masabumi Yuhara. "While we've acquired bending machines, what truly sets us apart is our in-house production of jigs and tools. They're crucial to the quality of metal bends, and the fact that we're able to make our own gives us a distinct advantage." Among the prestigious automotive clients that consider the manufacturer a dependable partner is Nissan; indeed, the companies' relationship stretches right back to Yuhara's founding in 1950.

In addition, Yuhara Mfg Co., Ltd has recently started doing business with Toyota Motor Corporation and has begun supplying piping for racing vehicles.

"Our ability to consistently deliver efficient, high-quality, and stable supplies has earned us their trust," Mr. Yuhara says.

As the automobile sector increasingly embraces the production of electric vehicles (EVs), Yuhara has a clear plan for success in this growth



market. "Given the surge in demand for EVs, the importance of heat control to prevent lithium-ion battery overheating has never been more critical," Mr. Yuhara explains. "We're dedicated to establishing a dominant market share in this pivotal field." Prominent among the other sec-

Prominent among the other sectors in which Yuhara has become a trusted supplier is the aerospace industry. "We manufacture pipes for H3 rockets," Mr. Yuhara reveals. "Notably, Mitsubishi Heavy Industries is involved in producing these pipes as well, but we handle the parts that they are unable to manufacture."

A company with overseas locations in Thailand and the United States, Yuhara is targeting the American market as it seeks to strengthen its international sales. While the firm this year opted to close its U.S. factory, it is to add a new Japanese production site focused on goods tailored for export to the States.

"The facility will encompass all the necessary capabilities previously present in the U.S. factory,"



"We intend to bolster our American sales office, undertaking robust sales activities in the States."

Masabumi Yuhara, President, Yuhara Manufacturing Co., Ltd.

Mr. Yuhara says. "Additionally, we'll maintain our sales office in America to ensure we retain our valuable customers there. We also want to value our relationships with customers in the EU who require Yuhara's technology."

Yuhara Mfg Co.,Ltd 株式会社湯原製作所 www.yuhara.co.jp

Product examples

Okita Iron Works: Mexico forging plant well placed to reach North American market

For more than 60 years since its foundation, Okita Iron Works has continued to supply safety-critical forged parts to a wide range of industries.



Okita forged parts

Since its foundation in 1963, Okita Iron Works has developed core strengths that set it apart from competitors in the global market, both in products and its customercentric approach.

"The capabilities of *gemba* symbolize Japanese workplaces," says company president Nobuo Okita. "Quality control, customer satisfaction, and corporate culture are key."

And in pursuit of staying ahead of the industry, Mr. Okita acknowledges the importance of preserving expertise amid Japan's aging population and declining interest in manufacturing careers, while investing in advanced equipment and optimizing processes.

"By doing so we can secure employees' health and allow them to work past the official retirement age of 60," he explains. "Diversity and SDGs (sustainable development goals) have become very trendy topics, however, this company has demonstrated those for over 20 years. As an SME we have to look for really talented individuals, not only considering



SAKAMURA hot formers in Mexico plant

new graduates. In Japan we have about 70 foreign employees from 15 different countries." In Mexico, using horizontal high speed hot forging machines (SAKA-MURA), 2023 sees commercial production begin using two machines with a monthly forging capacity of around two million pieces.



Okita Mexico

In addition to forging, specialized in cold rolling with advanced equipment, Okita applies this technology to various components, reducing scrap, which provides cost and environmental benefits.

"We believe our Mexico plant can connect the supply chain, from raw materials to finished parts, accelerating automotive parts localization in North America," says the president, who



"We provide high-value and unique products based on our founder's vision 'to make customers satisfied and share joy with them'."

Nobuo Okita, President, Okita Iron Works Co., Ltd.

envisions a more global presence while ensuring a conducive work environment at home.

"With close ties in China and Mexico, international expansion continues, but not at the expense of Japanese operations, where we are still trying to expand," he concludes.



The evolving role of EIWA in ever-changing times

Trading firm EIWA has moved beyond its role of merely selling products to become an engineering firm offering fully comprehensive solutions to its clients.



"We serve as a bridge connecting the strengths of different companies to provide value-added products and services to our customers."

Yoshinori Abe, President, EIWA Corporation

Japan's aging and declining population poses a major challenge to Japanese companies due to the subsequent reduction in the workforce. To address this challenge, more investment in automation technologies is required, which presents major business opportunities for trading and engineering firm EIWA. "Fortunately, we have the sensors and automation technology needed, so we have the potential to become a leader in this field," says company president Yoshinori Abe.



EIWA Osaka head office

EIWA operates in four main business fields: industrial measurement and control equipment; measurement and inspection instrumentation; environmental measuring and analysis instrumentation; and industrial machinery. Established in 1947 at the beginning of Japan's post-war industrial boom, the Osaka-headquartered firm has grown in tandem with the nation's manufacturing industry, with adaptation being key to its success and survival. Like many trading houses in Japan, EIWA, in more





recent times, has transformed from a mere buyer and seller of goods to offer more services and solutions to its clients as an engineering and manufacturing company.

Not only offering single-unit products, EIWA provides tailored services that meet its customers' specific needs and demands, which entails coordinating various products from different companies and selling them as integrated systems. "This approach allows us to combine and link different products, offering clients a comprehensive solution. Our sales services now also provide engineering expertise directly to customers," adds Mr. Abe.

"This new feature of our company was implemented to address the challenge many companies face with the retirement of skilled workers. This phase of transition is becoming increasingly common among companies. Unlike manufacturing companies, which can only sell their own products, we have the advantage of selling products from various firms as a trading company. We serve as a bridge connecting the strengths of different companies to provide value-added products and services to our customers."

The focus on meeting customer needs is essential for EIWA to continue to grow sustainably in difficult times, the president stresses, with the company offering solutions that cover everything from design, to procurement of materials and installation work. "We have a manufacturing subsidiary. so we are confident that our integrated manufacturing and sales proposals will give us a competitive advantage over our competitors. In addition, when making new proposals, it is important to improve the relationship of trust with customers that we have cultivated

since our founding and to improve our sales skills. Our strategic focus is on expanding and diversifying their functions even further."

Such diversification and expansion opportunities have come through evolving demands in energy brought about by the move towards environmental sustainability. The recycling of lithium-ion batteries, for example, is one area which holds major potential for EIWA, and aligns well with the company's existing business related to industrial waste. Hydrogen and ammonia, meanwhile, are attracting attention as clean energy solutions, and EIWA affiliate, FC Development Co., Ltd., manufactures JARI (Japan Automobile Research Institute)standard cells and various evaluation devices used for water electrolysis hydrogen production and methanation (CO₂+ hydrogen). "We sell these to universities and companv research institutions. This opens the possibility of new business opportunities for us," adds Mr. Abe.



Futaba Tech Corp., manufacturing subsidiary

Looking towards global expansion, while its focus will remain on serving Japanese-based clients, EIWA aims to leverage its presence in China to expand in fast-growing Southeast Asia. When it comes to import and export of goods, the company already works with international partners and has forged partnerships with manufacturers in European countries. "By offering a mix of Japanese-made and imported products, we can differentiate ourselves from other trading companies in Japan, avoiding competing solely on price," states the EIWA president "When we identify reliable overseas suppliers, we view them as partners."

Regarding his vision for the future, the recently installed Mr. Abe, who has taken the helm of the company at a defining moment, says he sees EIWA continuing to move beyond selling products to offer comprehensive solutions to its customers, whether by developing the solutions itself or through collaboration with our customers or partners.



Factory line of Futaba Tech

"Being a solution provider is the core focus of our role as a trading company," he says. "We see ourselves as a crucial link for numerous companies. The demand for digital transformation (DX) is increasing rapidly. While we possess expertise and know-how within our company, we recognize the need to incorporate external talent to develop our human resources further and adapt to the changing needs of society.

"At EIWA, providing training and upskilling opportunities for our employees, based on our company's philosophy centering around the combined efforts and cooperation of each employee of our company, is crucial to enhancing our collective capabilities. By continuously improving the skills of our workforce, we can deliver superior solutions to our customers and meet their evolving needs effectively."



Connecting vision and precision: a trusted source for industrial machinery, components and protective equipment





"We would like to continue to take advantage of our key main competencies; manufacturing and trading, in both Europe and America."

Kozo Okamoto, President, Nishinihon Shoko Co., Ltd.

Established in 1963, Nishinihon Shoko is a leading provider of machines, tools and industrial components, with its main focus being the automobile industry. The company's history is as a trading company. However, in more recent times, it has developed its capabilities as a manufacturer. And it is the combination of skills as both a trading house and manufacturing company that set it apart on the global stage, where it continues to expand its presence by providing niche market solutions.



Application of self-developed automated soldering technology to its own production lines

"Nishinihon Shoko has maintained a powerful presence in niche markets, especially B2B manufacFor over 60 years, Nishinihon Shoko has continued to refine a perfect blend of quality, innovation, and reliability for manufacturing and trading success.

turing. I believe that the history of the Japanese industry as a whole is very similar to the history of our company," says company president Kozo Okamoto. "We started off as a trader selling machines and tools and our main customers were automotive makers. Over time we



Automatic soldering system

developed our manufacturing capabilities supplying tools for glass makers that were producing glass for automobiles. We supplied connectors such as electric terminals and wire harnesses. That market was quite niche and we worked together with glassmakers to understand their requirements. As a result, we've accumulated the technology required to attach glass to the connectors."

Dedicated to providing high value-added product and solutions developed to the highest Japanese quality standards, Nishinihon Shoko's business is separated into four divisions: the machine tool division, which supplies industrial machines and tools, mainly for the automobile industry; the manufacturing product division, which manufactures electronic components used in automobile glass, as well as automatic assembly equipment; safety protective equipment, which sells all kinds of work protective equipment used at manufacturing sites; and the welding tip division, the most

recently established division that provides robotic welding tips for automobile assembly.

When it comes to product development, the company president stresses that the emphasis is on listening carefully to its customers and grasping the needs of the market firmly. "Looking at the needs of different markets, as you can imagine. the needs coming from China are slightly different from those coming from Japan or the U.S. It is very difficult to provide the same product or technology to all the different markets. By providing core specifications to everybody we can then add something else that is based on the customer's request or preference. In order to achieve this variance, the experience and know-how that we've accumulated are very key."

Speaking of recent developments, Mr. Okamoto says that Nishinihon Shoko is trying to be more ecofriendly in its manufacturing processes. "Lead-free is something that we are trying to achieve in our materials as well as our soldering processes," he says. "By upgrading these processes we believe that we can not only cut costs but also enhance our guality too."



Automatic terminal soldering system for automotive glass

After taking the helm of the company from his father (the company founder), second-generation president Kozo Okamoto put his focus on expanding Nishinihon Shoko's international presence. The company had traditionally catered to domestic clients, but today international sales make up a sizable and growing part of the business.



Yamaichi Co., Ltd. (a group member) provides electrodes for resistance welding, and LED technology for plant cultivation

Nishinihon Shoko initially entered the Chinese market with a U.S. partner, with whom it collaborated for three years before deciding to go it alone there. Following its successful establishment in China, Nishinihon Shoko established another company in the U.S., as well as a manufacturing base in Mexico, from which it is serving customers in North, Central, and South America.

The company has also established a 100% subsidiary in Indonesia, which is responsible for distribution in Southeast Asia, another priority market. "Going forward I see Indonesia taking the number two position in terms of global sales within Southeast Asian and Asian countries. We have a plan in place to start manufacturing in Indonesia before the end of 2023," explains Mr. Okamoto, although Europe and the Americas remains his main goal in the long term.

"I would like to resume our project to enter the European market and the other key goal is expanding our business in the Americas. We would like to continue to take advantage of our key main competencies; manufacturing and trading, in both Europe and America."



One-shot technology from Matsumoto Kosan

A manufacturer of high-precision parts, Matsumoto Kosan has established three major pillars of growth for the future: electric and fuel-cell vehicles, generative AI, and telecommunications.

Japan's renowned *monozukuri* manufacturing industry is typified by companies like Matsumoto Kosan, a precision parts manufacturer located in Saitama Prefecture. The company's high-quality, high-precision products are used in a wide range of industries, including automotives, medical and telecommunications.

Matsumoto Kosan's specialty is the cutting of metal parts using CNC lathes. The company's CNC lab has the capability to work with various nonferrous materials, such as aluminum, copper and titanium. as well as steel for the automotive industry. Additionally, the company has successfully developed a method to incorporate a magnetic element into stainless steel, creating a new type of functional material. "Unlike traditional approaches that involve multiple machines for cutting, curving, and shaping a product from cylindrical forms, our machining center is designed to perform all these processes in a single operation," adds president Naoki Matsumoto. "By leveraging multiple accesses that operate simultaneously, we are able to curve and create the end product in one shot. This approach maximizes efficiency and allows us to optimize our limited factory space by eliminating other processes."

Giving an example of how Matsumoto Kosan's one-shot technology has served as a successful solution for its clients, Mr. Matsumoto highlights one such client that supplies transmission controlled valves to Toyota. The valve supplier initially produced the product in-house and invested approximately JPY1 billion into factory production. While they managed to independently manufacture the controlled valves for some time, they encountered technical difficulties that hindered their production capabilities, and as a result, approached Matsumoto Kosan for a solution. "In response, we developed a prototype that accurately replicated the controlled valve with utmost precision," says Mr. Matsumoto. "The remarkable aspect is that we achieved this feat with a mere JPY 2 million investment, which amounted to just 1/10 of the production cost. This particular case exemplifies how our technology offers an incredibly efficient and cost-effective solution.







Valves and injectors



CNC machine

Matsumoto Kosan is like a temple customers come to at the last minute. They come to us for help and we can make it happen."

"On numerous occasions, we have served as an emergency refuge for many manufacturers in need," he adds.

Key to Matsumoto Kosan's ambitions to expand in the ASEAN region is the company's plant in Thailand,



Compressor part



Inside CNC machine

whose prolonged success can also be attributed to the strong supply chain ecosystem in the region. "Aside from our focus on developing highquality and high-precision products, the manufacturing process requires a well-established network of suppliers. Within this supply chain infrastructure, notable Thai SMEs specialize in stamping, forging, heat treatment, coating, and blade cutting, all of which contribute to the overall strength of the network," the company president explains. "As the driving force behind the creation of this infrastructure, we are contemplating expanding our presence to other ASEAN or Southeast Asian regions, starting from Thailand. We are also considering the establishment of a factory in Mexico, which has emerged as a prominent destination amid the ongoing decoupling between the United States and China."

Sending Japanese engineers to oversee operations at its Thai plant has ensured that high-quality Japanese production standards are maintained, while the company has also made a concerted effort to hire female employees across all its divisions over the past 10 years. Now, women make up 48% of the Matsumoto Kosan workforce, and the average employee age is 33, far below Japan's industrial average age of 43.

In terms of focus areas for the company moving forward, electric vehicles (EVs) and fuel cell vehicles (FCVs), generative AI, and telecommunications comprise the three main pillars of growth. The shift towards EVs and FCVs requires the development of parts, materials and components. "It is imperative that we establish a strong presence in the market by providing innovative products that align with this surge," states Mr. Matsumoto.

"The second pillar revolves around the advancement of generative AI, which necessitates the development of new components in this field. The third pillar is telecommunications, where the demand for complex and intricate components is also prevalent. Fortunately, we possess the necessary technology to fulfill these requirements, and our focus lies in identifying the optimal applications for our capabilities."



Bridging the gap and connecting global technology to the Japanese market

As an empowered SME, Japan Machinery's mission is to enable access to global manufacturing excellence.

Japan Machinery acts as a bridge between overseas manufacturers and Japanese manufacturing companies, something its president, Tomohiro Koizumi, describes as its "raison d'être".

With a history of 64 years as a value-added distributor and manufacturer's representative in the Japanese market, the company prides itself in bringing overseas technological excellence to the do-

mestic market and vice versa, and it has evolved greatly having recognized the necessity to add comprehensive services. This has enabled Japan Machinery to develop successful business relations with Japan's largest manufacturers,



Japan Machinery Co., Ltd. ジャパン マシナリー 株式会社 www.jmc.asia

as well as smaller, upcoming venture businesses.

"Simply introducing products here is not enough," Mr. Koizumi says. "We had to learn that we need to apply other functions by adding services for our clients, including technical support, maintenance, inspection, repair, replacement, and supply of consumables and spare parts. This entire range of services is the key to success for Japan's trading compa-

nies todav."

Identifying potential partners and staying updated on global advancements is key to the company's strategy and one of its biggest strengths lies in its network.

Although international collaboration is important, the company acts primarily as an importer rather than exporter, the top priority being to bring overseas technology into Japan.

"Thanks to our location very close to Haneda Airport, we are convenient for European and American companies and are looking at expanding our footprint into developing Asian markets." adds Mr. Koizumi.

In addition to its main sales office. Japan Machinery has a separate technical center, which serves as a warehouse and logistics hub, where demonstrations for potential clients and existing buyers can take place.

"Visually, it works very well to demonstrate the types of products and services we can offer," adds Mr. Koizumi, who is enthusiastic about the company's role and is committed to continuing its valuable contributions to Japan's industrial supply chain.





Exhibition

Revolutionizing Japanese manufacturing with leading technology and unparalleled service

Combining forward-thinking solutions, strong networking capabilities, and comprehensive support, Aichi Sangyo stands out by offering a holistic approach to advancing industries



"We import cutting-edge technology from around the world, and develop, design, manufacture, and sell our products."

Inoue Hirotaka, President, Aichi Sangyo Co., Ltd.

A leading industrial solution provider for metal processing industries in Japan, Aichi Sangyo was first established in 1927 and will soon celebrate a century in business.

In recent times the company, which, according to company president Inoue Hirotaka, can meet the



Sagamihara R&D center

demands of the whole domestic market, has made a series of investments through partnerships in three new fields: additive

manufacturing, EV related technologies, and artificial interagence. The aim. Mr.

Hirotaka states,

and introduce overseas companies with high potential for growth to the Japanese market," a transition which can be challenging owing to language and cultural boundaries.

"By providing comprehensive services to overseas companies who want to enter the Japanese domestic market," he continues, "we are giving them a higher chance of success in their endeavor."

The company has been actively seeking new partners in metal additive manufacturing and software. Looking to the future, Aichi

Sangyo will be focusing on the field of robotics, and on developing communication between robots and humans. Helping Japa-

nese SMEs achieve sustainable growth

is also high on Mr. Hirotaka's list of priorities. "The growth of Japanese SMEs," he concludes, "depends on whether they can generate high additive value in



Robot grinding system

manufacturing; and whether they can uncover high-profit margin products. We want to be available to support them in achieving both these things."





is "to act as a bridge PBF system SLM280

Sohbi Kogei: pioneering in precision molding and global expansion

A journey of innovation, collaboration, and manufacturing excellence.



Head office

Established in 1958, Sohbi Kogei's high-precision mold and die manufacturing technology supports the creation of high-quality automobile parts. The Japanese firm also designs and manufactures metal components for electronic equipment, OA equipment and automobile body parts and in-vehicle equipment.

While international expansion has become a focus point for many Japanese SME manufacturers in recent years, pioneering Sohbi Kogei made its first moves abroad back in 1988 when it established operations





Sohbi Kogei products

"It is hard to imagine a company like ours achieving this level of overseas expansion in those days. We had only around 200 employees in 1988. For a company of that size, we needed a lot of momentum to go out to overseas markets. Sohbi Kogei had a strong



Creating something new (top); the craft of manufacturing (bottom)



will to survive in this industry and the only way to do so was to expand in overseas markets."

Today Sohbi Kogei has several thousand employees worldwide and key to the company's success both at home and abroad is the fact that it possesses several hundred machines as well as pieces of equipment, which has allowed it to build strong in-house production capability and a diverse client portfolio. "This is what I think is our company's core competency and what sets us apart from our competitors," states Mr. Otsuji.

Another key success factor highlighted by the president is the exchange of knowledge at a global scale within the group, with employees encouraged to be innovative, coming up with and sharing new ideas. "We are trying to promote the enhancement of technologies as a group, allowing the whole group to bring each other's levels up by sharing information and experiences. I think that our growth is pretty much driven by small group activities where employees can compete with each other. This activity is called "ISOAP activity" in our group and it has a history of more than 20 years."

Sohbi Kogei has also been pioneering when it comes to factory automation and robotics, with Mr. Otsuji overseeing the implementation of automated production lines in China from as early as 2006. "I believe that we were successful in this initiative, and it is the reason we have expanded this initiative to other locations."

With the push towards carbon neutrality, building lighter and higher performing parts for the growing number of electric vehicles (EVs) on the roads is becoming increasingly more important. Producing molds and components for such parts is a major challenge for Sohbi Kogei moving forward.

"The world is now moving towards electrification and within the structure of these EVs, the motor is the most critical part and requires super-precision technology. Motors also require CONTENT BY THE WORLDFOLIO



"By opening ourselves up to collaborations and embracing foreign firms as rivals rather than enemies, we can achieve mutual growth and unlock endless possibilities in the global market."

Atsuo Otsuji, President, Sohbi Kogei Co., Ltd.

a case and that case also requires precision molding technology," Mr. Otsuji explains.



Sohbi Kogei produces a variety of items

"This sector is the area we are targeting in particular at the moment as it requires the molding technology which we possess.



Skill-sharing meetup

We are trying to establish an automated production for this field with measuring machines installed so that we can gather data and enhance the accuracy of our production."



TADASEIKI: injection mold professionals



"Molds are important tools and a key driver of productivity for our customers."

Norio Tada. President. TADASEIKI Co., Ltd

TADASEIKI Co. Ltd., one of Japan's most reputable mold manufacturers, was established in 1964 in Gifu, Japan. Having had almost 60 years of experience in the market, TADASEIKI has proven its existence in the local and international markets.

This, nevertheless, was achieved by learning from its failures and successes and thus, striving to improve and develop our technology.

TADASEIKI is very keen to ensure its customers' manufacturing products are high-precision and defect-free, as these molds are commonly used in industries such as automotive and industrial machinery.

For years, limited precision from machining tools has made mold manufacturers struggle to produce burr-free products. But, after years of painstaking development, we believe that we have reached the level of producing a burr-free product.

Yearly, TADASEIKI manufactures approximately 500 molds. Each one of the molds is valued by end users/customers for determining successful productivity.

"The occurrence of burrs is typically due to dimensional errors," says Norio Tada, president of TADASEIKI. "To prevent resin from entering the gaps between the parting lines, using our method we meticulously remove these gaps. This is how we manufacture a burr-free product."

"It is important to recognize the challenges faced in achieving such a level of precision," Mr. Tada emphasizes, "Throughout the manufacturing process, we have gained valuable knowledge and experience and are capable of creating seamless surfaces through techniques such as grinding and milling."



Stepless parting lines

In addition, TADASEIKI has the expertise to meet any reguest, regardless of the complexity, and is prepared to comply with customer specifications/ requirements for producing a more challenging technology. TADASEIKI also provides measurement services for mold parts to search for deformation and residue. "Ultimately, the success of achieving high precision lies in the design and meticulous execution during the manufacturing process," adds Mr. Tada. "While it is true that higher levels of



Seamless surfaces of product samples

precision can be achieved with a larger investment, our company prides itself on delivering the same result with a more effective method."



Product with step slide

Furthermore, one area that holds great potential for the future of mold industries is decorative injection mold, which can be applied to various industries, including automotive. TADA-SEIKI aims to develop highquality decorative mold required for the interiors of the next generation of automobiles, i.e., autonomous and electric vehicles. "It is worth noting that decorative mold can go beyond mere aesthetics." Mr. Tada explains. "I strongly believe that the utilization of decorative mold will contribute to significant growth in the molding industries."



Decorative injection mold

The resin used in decorative mold is particularly suitable for addressing electromagnetic interference and managing heat generation in electric vehicles (EVs). The company's knowledge is highly recognized by its customer considering TADASEIKI has been the preferred partner in solving EV-related issues - this has been a true privilege for Mr. Tada.

"Moreover, this technology is also applicable in liquid silicone molding. Typically, mass production of liquid silicone molds is hindered by the occurrence of burrs. However, our technology shows much more efficient results. Rather than pursuing entirely new concepts, we are focusing on perfecting our fundamental technology," Mr. Tada says.

"Many customers emphasize the importance of precise molding in their research and development. When facing the issues stemming from inaccurate molding, they will struggle to identify the root cause. Consequently, they will have to seek flawless mold, which is the reason they rely on our expertise. Numerous customers certify the precision of samples produced from our mold."



Gradation design

Expanding globally, TADA-SEIKI has been focusing on three countries, namely China, India, and the United States (U.S). While TADASEIKI has successfully collaborated and penetrated Indian and Chinese markets, penetrating the U.S. market will be a longer-term goal due to the company currently seeking local partners.

International growth is an important key to TADASEIKI's goal to reach its sales targets of 6 billion yen over the next 5-6 years and 12 billion within 12 years. Nevertheless, it is just as important for the company to enhance its contribution to the local community in Gifu. "While I am confident that TADASEIKI can sustain its operations beyond our 65th anniversary in 2029 at our current scale, survival is insufficient to thrive in Gifu or Japan as a whole," says Mr. Tada. "We need to contribute to our local community. We are actively pursuing collaborations with the local community, recognizing that our ability to contribute to Gifu hinges on increasing revenue and expanding our workforce."



Kaneda Corporation: The perfect partner to titans of industry

A firm founded over 75 years ago, Kaneda supplies superb steel parts for a host of major companies' manufacturing plants.





Energetic female employees

The Japanese company Kaneda Corporation has established itself as a trusted, specialist supplier of large-scale steel parts for manufacturing plants.

Boasting a client portfolio that features industrial giants such as JFE Steel group, Kawasaki Engineering and Mitsubishi Heavy Industries group, Kaneda offers a comprehensive service, taking care of the design, manufacture, transportation and installation of expertly-made products including pipes, ducts, tanks, mounts, dampers and conveyors. "Our customers get the full package," says the firm's president, Mio Hatashima.

WEC Connect



"Kaneda was founded in 1947 by my grandfather," Ms. Hatashima explains. "We originally manufactured metal buckets, but that business later evolved to metal sheet processing, specifically making roofs and walls for buildings. Listening to our customers' suggestions that we shift to steel frame manufacturing for construction components, we entered this new field. However, the construction industry has its ups and downs. When it was down, we decided to go into plant manufacturing."



Dumper for steel mill makers

Based in Tamano, Okayama Prefecture, Kaneda crafts unique, custom-made parts. "No two products are identical," Ms. Hatashima says. "Nothing is manufactured again for other use. Each time, we make an individual manufacturing plan."

On top of its Okayama production site, Kaneda also boasts a factory in Dalian, China – and this ability to manufacture both at home and abroad allows the company to cater to a range of needs. "Since some customers strictly require products to be made in Japan, we can do that at our mother factory here," Ms. Hatashima notes. "Some customers don't require quite such high quality, though, so we can produce those items overseas to reduce the cost. This gives us an advantageous position in the market. We provide after-sales maintenance and full support, too, so it's no surprise that we've become a go-to partner for major companies."



Women's helmet full of art

With Japan's aging, dwindling population leading to a shrinking domestic market, Kaneda is out to bolster its international client base by strengthening its presence abroad. "We're looking overseas for expansion, but it's still too early to say where we'll do that exactly," Ms. Hatashima says.

Kaneda's growing global focus is also central to its efforts to overcome the reduced talent pool caused by Japanese population decline, as the company seeks to leverage its commitment to fostering a diverse workforce. "We've been actively recruiting and welcoming foreign associates," Ms. Hatashima reveals. "There has been a regulation change in Japan that allows these trainees to stay here for longer, instead of short-term. Our foreign associates from China, Indonesia, Brazil and the Philippines are very excited about this



20T crane in the shop

"We want to provide equal opportunities to all, including women



"We take pride in providing extremely reliable products that meet the high-quality requirements of our customers."

Mio Hatashima,

President, Kaneda Co., Ltd.

and foreign associates. Diversity and inclusion are the big themes that we highly value in our employment scheme. The steelwork industry is oftentimes dominated by men, but we have talented young women who are tirelessly doing sales, architectural designs and procurement.



Loading work at a nearby port

"We've been acknowledged by WEConnect International, a U.S. non-profit organization, as a firm that actively promotes women in the company. WEConnect has more than 180 member companies that are committed to sourcing products and services from women-owned businesses worldwide, allowing us to build links with various companies globally. We're hoping that this network can help us develop a strong overseas business."



Behind the scenes: Nambu's innovative hydraulic cylinders, solving specific industry challenges

Nambu specializes in high-quality, reliable hydraulic cylinders, working collaboratively with customers to provide innovative solutions, including custom-made designs and products for diverse applications.

Necessity is the mother of invention, and the needs of customers often drive business innovation. Japanese hydraulic cylinder manufacturer Nambu's made-to-order approach focused on client demands has placed it at the vanquard of its industry.



Headquarters

Founded in 1941, Nambu's central product lines are hydraulic cylinders and rotary joints, primarily for use in molds and dies in industrial machinery. The company's business model focuses on actively listening to and collaborating with its customers in a made-to-order approach. This



understanding of its customers' needs has seen Nambu expand into other areas, such as manufacturing rotary joints, equipment parts, limit switches and a range of sensors, as it moves towards becoming a total solutions provider. e-Zero "Over the next eight years, our objective is to acquire comprehensive technologies and assemble an exceptional team of engineers capable of meeting the growing market needs."

Takahide Nomura, President, NAMBU Co., Ltd.

One of the company's flagship products is the e-Zero. Company President Takahide Nomura explains the e-Zero uses electrohydraulic actuators instead of conventional hydraulic systems and controllability through an electric servo motor. This energy-



on-demand system rotates the pump only when thrust is needed and can reduce electricity by 90% compared to conventional systems.

This type of innovation saw Nambu selected as a Global Niche Top 100 company by Japan's Ministry of Economy, Trade and Industry in 2014. Moreover, its pioneering technology has enabled Nambu to expand globally, and the company now has six production bases in countries such as China. Thailand and the United States. Mr. Nomura explains that Nambu's hydraulic cylinders for dies have performed particularly well in overseas markets, and Nambu is always looking for the best way to provide it products and services to customers in each country.

GNAMBU **Big Power on Demand** www.nambu-cyl.co.jp

Driving Global Innovation: pioneering a path for advanced technology companies

Shimonishi Giken Kogyo (SIMOTEC) Group has established itself as a leading manufacturer of structural and composite parts.



"With more than three decades of experience behind us, we have a track record of manufacturing and supplying parts to more than 900 domestic and overseas set manufacturers."

Takashi Shimonishi, President, SIMOTEC Co., Ltd.

First established in 1990, SIMO-TEC boasts customers from a wide



Switching Mag Holder®

range of industries including precision equipment, telecommunication equipment, and factory automation. Using mechatronics, magnetism, and thermals, the group creates new technologies based on analytical simulations by expert engineers.

Meanwhile, a shift is taking place in Japanese manufacturing, with effective communication and marketing gradually becoming as important as innovation itself.

Accordingly, the firm, according to President Takashi Shimonishi, is currently focused on "marketing and understanding customer needs" and aims to

"deliver solutions with increased complexity and higher value, ensuring a competitive edge that is difficult to replicate."

Mr. Shimonishi continues: "Our commitment to catering to evolving market demands is reflected in our product development efforts."

One such product is the Switching Mag Holder, an energy-saving magnetic application product that can be switched on and off



Assist Hinge for copy machine/printer by instantaneous energization

and maintains its absorption



force even without energization. Moreover, reducing electricity consumption enables SIMOTEC to achieve economic growth while reducing its impact on the environment; it contributes to addressing climate change and promotes sustainable practices.

Looking to the future, and with existing bases in Southeast Asia, the group is aiming to enter the global market. While such a move may prove challenging initially, Mr. Shimonishi is adamant that it will pay off in the long run.

"Our focus," he concludes, "is not solely on technology but also on enhancing values. While our sales increase, it's essential for us to keep striving for excellence in our products."

www.simotec.co.jp



Marine and motorsports part of the new make-up for pioneering Showa Denki Group

For industrial equipment manufacturer Showa Denki Group, expanding into new fields like marine and motorsports has rejuvenated the company.



"I feel that we embody the pioneering spirit through our pioneering actions."

Kensaku Kashiwagi, CEO, Showa Denki Group

"I firmly believe that a life without risk is not worth living," states Kensaku Kashiwagi. And it is thanks to this adventurous mindset that the President of Showa Denki Group has helped the company to move from being a relatively unknown Japanese manufacturer of industrial equipment, to a partner in a successful motorcycle racing team and a leading name in the sports boat industry in the United States.

Around 2019, Mr. Kashiwagi recalls he sensed a significant shift

in the market, with a surge in customer interest and discussions revolving around Showa Denki Group products, particularly in the field of electronic devices. "At the same time, the company became more commonly known as SDG (an abbreviation of Showa Denki Group). which was further bolstered by its involvement in a motorcycle racing team. Racing machines are visually striking and highly captivating, garnering excitement from spectators. In 2021, Honda's top racing team and SDG join forces, and in 2022, the SDG Honda Racing Team was launched."

The team has participated in three championships so far: the Japanese Championship, followed by the Asian Championship and finally the Suzuka 8 Hours Endurance Road Race of the World Endurance Championship. "In the Asian Championship, we won four races but unfortunately lost the championship last year," adds Mr. Kashiwagi "SDG-Honda is a top team, and we always strive for victory, even when it may seem impossible."

This desire to strive for the best even in the most difficult circum-

SDG Honda Racing Team



FIM Asia Road Racing Championship



Exhibition in Thailand (Intermach 2023)

stances is indicative of the culture at SDG. While the pandemic was a difficult time for businesses around the world, SDG saw it "as a significant opportunity to make a substantial impact and achieve a level of success". And that success translated to the company doubling its sales volume in 2022. "Trust is

the most crucial sentiment for customers," Mr. Kashiwagi stresses, "and I the personal trust built up through our marine business and our motorcycle racing team."

Aside from trust, Mr. Kashiwagi highlights three other key words that define the company's business approach and his management strategy. "The first is 'cool'. I want our products and sports teams to epitomize coolness, and the SDG Honda Racing Team and SDG Marine Factory team are both very cool."

"Taking care of our employees is important to us, and so I would say



attribute a key factor behind this growth to the trust our customers have placed in us."

While client trust remains paramount for SDG across the Pacific Ocean also, success has come in a different form in the United States, where SDG entered the boating industry through its acquisition of Texas Boat World, which offers the best in new and used motorboats. trailers, and motors. Bass fishing is a highly popular sport in the U.S. and competition is rife among boat manufacturers. "Currently, in both the bass boat and the industrial equipment industry, dozens of small and medium-sized companies are merged into several companies or business transfers due to problems such as a lack of successors and other reasons," says SDG's top executive. "However, we can beat other competitors through our global support network and that the second keyword is 'benefit'," he adds. "The third keyword is 'pioneer', and it is my mission to astonish customers with the products and solutions we offer. I want them to perceive our solutions as something they have never seen before. Take SDG Marine, for example; every new product we introduce is a first in the Japanese market. I feel that we embody the pioneering spirit through our pioneering actions, and in my opinion, this keyword holds great importance for the future."





www.texasboatworld.com