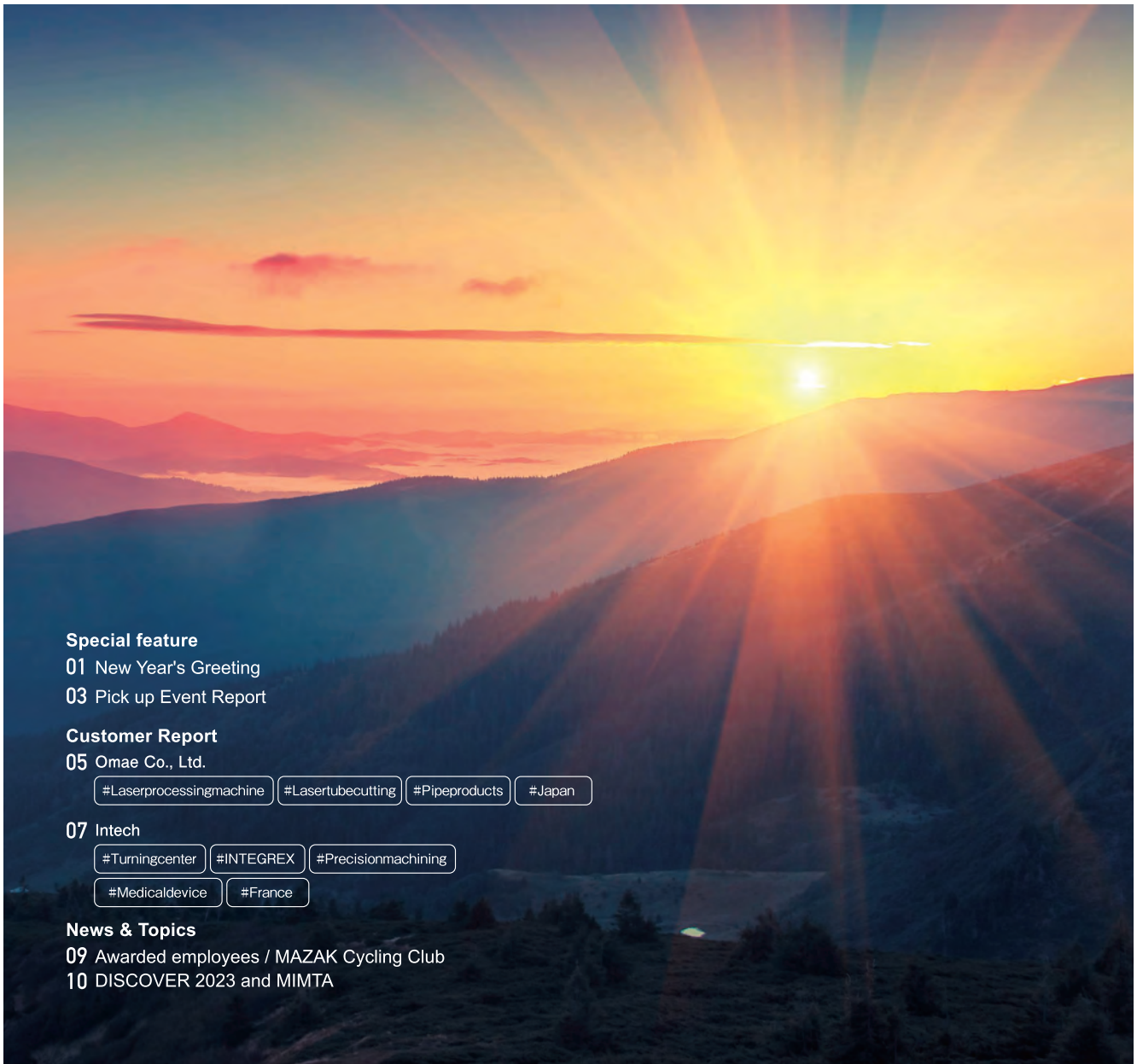


CYBER WORLD

2024
No.69

Times of change, rising to the challenge of new manufacturing



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New Year's greeting

President
Takashi Yamazaki



I wish you a Happy New Year.

Last year, the growth rate of the global economy slowed compared to the previous year. However, machine tool orders were steady, supported by the demand to address various issues such as labor shortages and capital investment to improve productivity. At machine tool exhibitions held around the world, venues were lively with visitors eagerly gathering information to solve problems, indicating a high potential for capital investment.

As mentioned above, labor shortages are a common issue in many regions, and there is a growing interest in public in automation systems, AI and digital technologies to improve productivity. To meet these needs, we are also strengthening the development of machine tools and automation systems, which can be easily handled even by inexperienced workers.

Looking at industrial trends, last year was a year in which EV-related investment gained momentum around the world, with factory construction and technological development accelerating with the aim of the commercialization of EVs. In the automotive industry, dramatic transformations are taking place in the field of manufacturing, represented by Giga Press, which integrally molds large structural parts. Our company will further focus on developing new products that can meet the machining needs and issues of customers responsible for processing EV parts.

In recent years, the space industry has also received increasing attention. The market is predicted to expand to 100 trillion JPY by 2040. In addition to rockets and artificial satellites, it is expected to create demand for a variety of machining, such as

launch pads and other ground equipment. Since space-related parts machining requires higher reliability, safety, and weight reduction, demand for high precision parts is expected to increase. Our company would like to support the development of the space industry through the development of high-performance and high-precision machine tools.

Our global expansion is aimed at providing production and service support at locations close to our customers. Based on this global strategy, we built a new production factory in India, where economic growth continues at a high level, and began operations in March of last year. The Indian plant is producing the "VC-Ez series" vertical machining centers that reflect local demand, and we have already received many orders. Since developing our first sales office in India in 1998, we have focused our efforts on human resource development for many years. In the future, in addition to the excellent solution proposal capabilities of our local employees, we will contribute to the further development of the manufacturing industry in India by providing high-quality products promptly.

The environment surrounding the manufacturing industry is becoming increasingly uncertain due to changes in the industrial structure, but times of change like these present opportunities for new manufacturing. We will continue to develop and provide solutions that support the further development of the manufacturing industry.

I hope for your continued good health and success and renewed support in this New Year.

M NEW YEAR'S GREETING 2024

Pick up Event Report 2023 Autumn Exhibition

Last year, machine tool exhibitions were held all around the world, and Mazak welcomed a great number of visitors. Representatives from each country will introduce the details of the exhibitions.



EMO HANNOVER 2023 SEP. 18-23

“The Mazak booth was a great success; we express our gratitude to everyone”

Everyone, thank you for coming to EMO 2023 which took place in Hannover, Germany last year. I am Bruno Munier from Yamazaki Mazak UK Ltd. EMO Hannover 2023 welcomed worldwide visitors and our Mazak booth was a great success. With the theme of providing solutions to the challenges faced by manufacturers, we exhibited 19 machine tools and 11 automation systems. The FSW-460V, a friction stir welding machine and MAZATROL DX, a production support software product were introduced for the first time in Europe. The VCN and VCE series and the European-built 5-axis multi-tasking machine, the CV5-

500 were all very popular with European machine users looking to invest in high quality machines at affordable prices. We took four models from our flagship INTEGREX series to the event, including the INTEGRX i-250H ST AG which attracted the attention of customers with its integration of auto-gear technology and measurement function.

Mazak will continue to pursue high technology and service quality and believe in a future that will develop together with our customers.

Yamazaki Mazak U.K. LTD
Deputy European
Managing Director
Bruno Munier



A Mazak booth reception representing "NEW DIMENSIONS IN MACHINING" B Automation systems including Ez LOADER 30 are exhibited C Demonstration of Smooth Oscillation Cutting by INTEGREX i-630V/6 AG D President Takashi Yamazaki (center in the front row) and Mazak employees from all around the world E Mazak booth bustling with visitors



FABTECH 2023 SEP. 11-14

“Customer’s attention focused on the latest laser processing machine and automation system”

Hello, I am AI Bohlen from Mazak Optonics Corporation. FABTECH 2023, North America’s largest metal forming, fabricating, welding, and finishing event, was held in Chicago, Illinois. More than 40,000 people visited the event from last September 11 to 14.

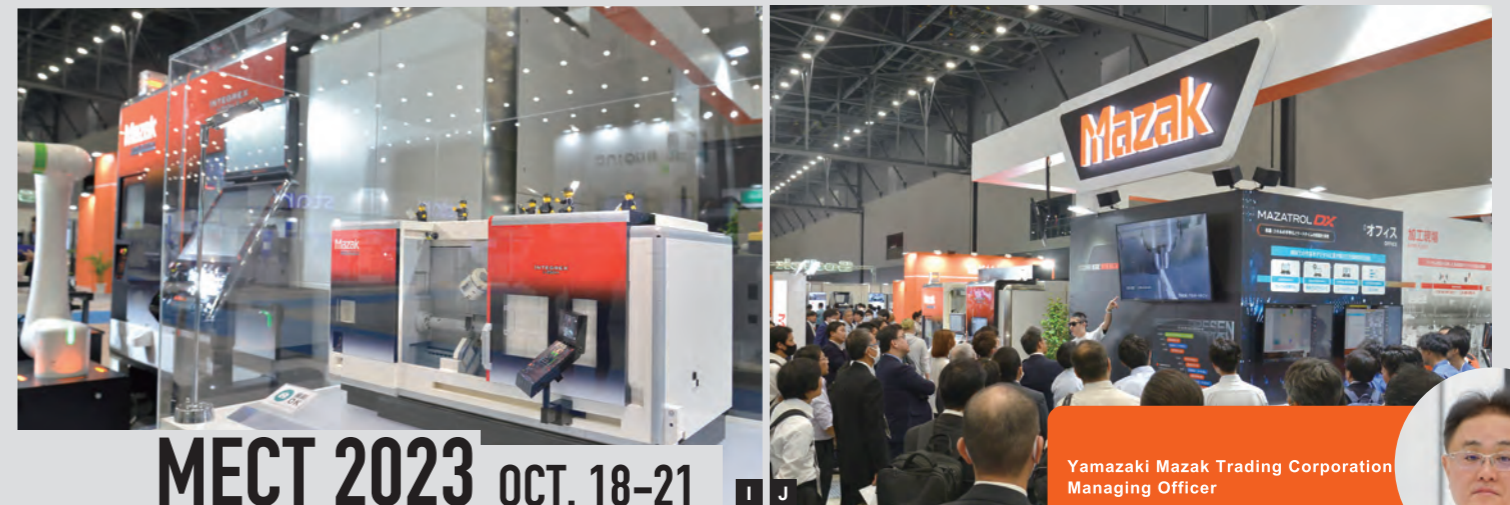
Mazak exhibited new OPTIPLEX 4220 NEO 20.0 kW high-power laser machine, leading the showcase, along with OPTIPLEX 3015 NEO 7.0kW and automation

systems. At the booth, we demonstrated cutting with a high-power laser and robotic part sorting. In addition to the latest technology, the newly developed sample parts and "Customer Successes," a video introducing customer cases using Mazak machines were attracting the visitors' interest.

FABTECH 2024 will be held in Orlando, Florida this year. We are looking forward to meeting all of you.

F Laser processing machine exhibition zone alive with a multitude of visitors G Industrial robot attracts the interest of visitors H Demonstration by OPTIPLEX 3015 NEO

Mazak Optonics Corporation
President
AI Bohlen



MECT 2023 OCT. 18-21

“We offer solution born from combining machine tool and automation system”

Everyone who attended MECHATRONICS TECHNOLOGY JAPAN 2023 (MECT 2023), thank you very much for your support last year. I am Masato Shimura from Yamazaki Mazak Trading Corporation. MECT 2023, an exhibition of machine tools was held in Aichi, Japan in last October. Over 77,000 people came to the event, and our booth was very well-received. Under the theme of "Digital manufacturing solutions of Mazak for carbon neutrality", Mazak exhibited 7 machine tools and automation systems. We offered proposals to save human resources and improve productivity by exhibiting the integration of the Ez LOADER 30 and INTEGREX i-200H S connected to MAZATROL DX. One of the highlights of

the exhibition was the LEGO model of the INTEGREX i-250H created by Ms. Sachiko Akinaga, the LEGO brick artist, which was set next to the real machine. In Aichi Prefecture, where the automotive industry is thriving, the FSW-460V machine utilized in the manufacture of parts for EV, drew the focus of visitors. Special presentations held by Japanese manufacturing YouTuber, Mr. Monozukuritarou and Mr. Masatoshi Igarashi from MISUMI Group Inc., also captured the spotlight and there was a constant crowd at the booth.

Mazak will keep offering valuable total solutions to customer issues moving forward.

I LEGO model of INTEGREX i-250H created by LEGO brick artist, Ms. Sachiko Akinaga J Special presentation held by YouTuber, Mr. Monozukuritarou

Yamazaki Mazak Trading Corporation
Managing Officer
Masato Shimura





Customer Report 01

Omae Co., Ltd.

Mazak machines' power to draw out smiling faces of customers

Omae Co., Ltd. (Higashiosaka City, Osaka Prefecture) established a two-pillar production system for bending pipe and punching machining at the headquarters factory and for sheet metal and canning processing at Kawachi factory. The company is working on this practice with the operating principle of "creating products that bring smiles to our customers."

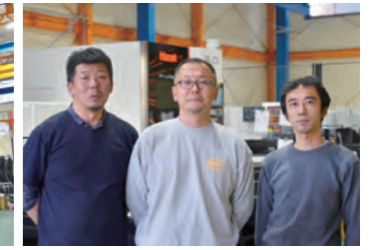
3D FABRI GEAR 400 III used in structure steels and pipes processing



President Yoichi Omae and employees of the company's Kawachi factory



Achieving high accuracy and productivity with the introduction of FT-150 FIBER



Senior Managing Director Masayoshi Omae, President Yoichi Omae, Employee Koji Matsuda (from left)

Introduction of laser machine aimed at improving manual labor

"I have always wanted to improve the manual process such as cutting iron plates and using patterns. At that time, I learned about the existence of SPACE GEAR-48 Mk II, saw the actual machine at an exhibition, and was attracted to the fact that it can process not only flat sheets but also pipes."

Mr. Yoichi Omae, president of Omae Co., Ltd. explains the background behind the decision to introduce a laser processing machine. At the time of its founding, the company was involved in the production of iron formwork for pouring concrete during tunnel construction.

The company entered the stainless steel processing industry when it began producing parts for food machinery. The company captured the customer base through pipe and sheet metal processing. President Omae pursues "providing products that meet the trust of our customers in terms of delivery, price, and quality" to embody the company's philosophy. These are also strengths that other companies cannot match. "From a customer's perspective, delivery time is our top priority. We provide products that satisfy customers at a price and quality to match. This is our mission, and all of our employees work with this mindset."

Reduction to a few minutes for tasks that took a whole day

The company regards Mazak's laser processing machines as "machines that can make customers smile," and expanded the range of work according to the characteristics of each machine. Following the first model, the company expanded its customer base by gradually introducing 3D FABRI GEAR 400 III (2017), SUPER TURBO-X 3015 (2022), and FT-150 FIBER (2023). Among these, the 3D FABRI GEAR 400 III attracted attention from customers for its ability to handle long structural materials, opening up new business fields. This led to orders for mass-produced items related to public works. The SUPER TURBO-X 3015 is active as a successor to the SPACE GEAR-48 Mk II. "Depending on the content of the work, we have achieved a speedup of 20%," President Omae said.

The FT-150 FIBER is a strategic machine that the company is so focused on that it has built a dedicated building for it near its head office. President Omae praised the machine's high-speed cutting performance, saying, "In some cases, work that would have taken an entire day can be completed in a few minutes." Senior Managing Director Masayoshi Omae, who is in charge of product design and program creation, said, "This is a reliable ally for our company as we move forward with automation and production capacity. The advantage is that cutting begins just by loading the material onto the loader, and the workpiece is automatically unloaded. We hope to get the mass production system on track as soon as possible."

Aiming to increase customers through open house with actual equipment

"Not only the main body but also the evolution of CNC system and software that pursues ease of use are unique to Mazak machines. Despite the complex processing, I think it is a friendly machine that even new workers can operate intuitively." The production lead time reduced by the rapid processing of the installed machines has resulted in tighter delivery deadlines and shorter delivery times. The company's customer strategy of prioritizing delivery times is bearing fruit.

"If the products we produce with Mazak machines bring a smile to our customers, the smile will come back to us. As a result, it will lead to more rewarding work for our employees. That's the kind of company I want us to be," President Omae said strongly.

In the spring of 2024, the company plans to hold an open house at the head office and Kawachi factory with the aim of pursuing customer orientation and increasing the name recognition. "We would like to show the Mazak machines in action and have an opportunity to listen to our customers' requests and the customers to get a feel for our company's potential." In December 2023, the company opened a DIY rental space in the corner of the Kawachi factory, holding workshops and steadily progressing with activities suitable for Higashiosaka, one of Osaka's leading manufacturing towns.



Omae Co., Ltd.

Executive President : Yoichi Omae
 Head office : 3-13-2 Takaidanaka, Higashiosaka, Osaka, Japan (Takaida factory)
 Kawachi factory : 2-4-5 Honjo, Higashiosaka, Osaka, Japan
 Number of employees : 28
 E-mail : honsha@omae-ss.co.jp

Website
www.omae-ss.co.jp



Instagram



DIY rental space opened in a corner of the factory



High-accuracy sheet metal processing is supported by SUPER TURBO-X 3015



Pipes up to a maximum of 406.4 mm in diameter can be processed

Workpieces processed by Mazak machine

Various pipe products processed at Omae





Highly automated cell in Alabama consisting of Mazak machines coupled with robotic arms

Intechers at Headquarters in France

Programmer optimizing cycle times on CAD/CAM system



INTEGREX i-H series made an impact on productivity

New Mazak machines installed in the 4,000 square meter (40,000 square feet) extension

Director of Advanced Manufacturing at Athens Joseph Forsyth

Intech

President & CEO : Laurent Pruvost
 Head Office : 158 rue de l'Eglise, 62180 Rang du Fliers, France
 Number of employees : 1,200



www.intech-medical.com



A global company for healthcare

The advancement of science has been pushing the boundaries of medical care and minimally invasive surgery. Enter Intech, a market leader and game-changer for orthopedics, headquartered in France. The group specializes in the manufacturing of medical devices from implants to surgical ancillaries and handles everything from design to machining and packaging, with a particular focus on complex instrumentation. There were only 17 employees when the company was founded in 2000. Over the years, Intech gradually grew its footprint by expanding overseas to the United States and Malaysia while building out its offering to provide its customers with end-to-end solutions. Today, the company has grown into a global corporation that counts over 1,200 "Intechers" across nine factories in Europe, the United States, and Asia, providing medical equipment worldwide. As it strives to establish itself as "the partner of choice for medical device contract-manufacturing", the company is praised for its strong R&D and manufacturing expertise.

More than 50 Mazak machines at one site

Intech counts over 100 pieces of Mazak equipment within the group but one site stands out: a facility formerly known as Turner Machine that is based in Athens, Alabama (USA). That facility joined the group in 2015 but had purchased its first Mazak machine back in 1985: a QUICK TURN 25 2-axis lathe as it established itself as a tool and die shop. The affordability and excellent precision in machining were the driving factors behind its adoption. And, more than 40 years later, their relationship with Mazak is stronger than ever! Intech Athens boasts a 10,000 square meter (100,000 square foot) facility including a robust production area with over 70 CNC machines, 57 of which are Mazak equipment including lathes, machining centers, 5-axis multitasking machines and automation systems, which occupy a central role in the machining of complex components that go into minimally-invasive implants and instruments. Intech's

commitment to innovation and investment in new technologies is paying off – this site has more than doubled its revenue since it joined the Intech group in 2015!

"Arguably, the INTEGREX i-H series has had the most impact within our high mix, low volume operations by improving efficiency with complete multi-axis machining in one operation that took 2 or 3 previously", said Mr. Joseph Forsyth – Director of Advanced Manufacturing at Intech Athens. He also pointed out that leveraging Mazak's smart automation solution has "increased opening time", and that the higher responsiveness from the MAZATROL Smooth CNC systems has allows them to "improve cycle times".

Better products for a better life

Medical devices are becoming more and more intricate for improved care and faster patient recovery. To meet these needs, Intech is always at the forefront of new technologies. They recently expanded their capabilities by joining forces with Lenkbar in Naples, Florida (USA) to offer in-house grinding, in a merger that is poised to advance minimally invasive surgery, cutting tools, and sports medicine.

"At Intech, we blend INTElligence with TECHnology to create an entire ecosystem of innovations. Drawing on our synergies to reach higher and rise to the challenge with passion, ambition and humility. Forever exceeding expectations to deliver a world of excellence to enhance patients' lives.", said Mr. Laurent Pruvost, President & CEO of Intech.

"Mazak has been a true aftermarket partner to all of our sites by being responsive for maintenance and servicing of equipment. This helps us reduce the non-forecasted downtime ensuring that Intech is back up and running in a short window and can continue producing devices that help improve patient care."

Today, Intech takes pride in delivering precision machining on a global scale which inevitably helps improve patients' lives worldwide.

Workpieces processed by Mazak machine

Medical products made by Intech



Customer Report **02**

Intech

we tech care

Supporting the medical industry involves more than just doctors and nurses. Indeed, the medical equipment used in the field is crucial to delivering patient care. Intech, the French orthopedic instrument manufacturer provides its services to medical device companies worldwide and supports the industry with an advanced machining platform.

More than 100 Mazak machines are active in Intech factories around the world.

Mazak News & Topics

News & Topics

01

Nobuo Takagi receives the "Medal with Yellow Ribbon"



Mr. Nobuo Takagi of the Headquarters Production Engineering Department, who has been engaged in metal heat treatment and material testing for over 30 years, received the "Medal with Yellow Ribbon" in the Fall 2023 Awards. The Emperor confers the "Medal with Yellow Ribbon", which is an award given to individuals who have worked hard in agriculture, commerce, industry, etc. whose skills and achievements serve as role models for others. Currently, Mr. Takagi is in charge of the heat treatment of spindle parts at a factory that handles the integrated production of spindles. His development of a heat treatment method for spindle parts using "high-intensity carburizing and quenching," a technique to enhance the durability of metals, has resulted in longer lifespans for machine tools and increased efficiency in heat treatment, earning him the current award.

Takehiko Ochiai selected as a "Contemporary Master Craftsman"

Mr. Takehiko Ochiai of Minokamo Plant 1 was selected as "Outstanding Technician (Contemporary Master Craftsman)" for 2023. "Contemporary Master Craftsman" is a system in which the Minister of Health, Labor and Welfare grants awards to people who have extremely outstanding skills and have contributed to the development of industry.

Mr. Ochiai has been engaged in the assembly of laser processing machines for many years since joining the company. Scraping the slideway, which is the basis of assembly, is an important element that affects machine accuracy. Mr. Ochiai was selected for this award in recognition of his ability to produce highly accurate flatness and squareness during this scraping process, and for his contribution to improving the precision of laser processing machines.



A total of 10 Mazak employees have received the "Medal with Yellow Ribbon", and a total of 14 Mazak employees have been selected as "Contemporary Master Craftsmen." We will continue to strive to develop highly skilled human talents and contribute to the development of manufacturing around the world by providing high-performance machine tools.

News & Topics

02

MAZAK Cycling Club Shogo Tayama, Kentaro Ohara won the SHIMANO Suzuka Road 2-Hour Endurance race 2-person team championship

At the 38th SHIMANO Suzuka Road held in Suzuka City, Mie on August 19th last year, MAZAK Cycling Club's Mr. Shogo Tayama (Tokyo Technical Center) and Mr. Kentaro Ohara (Nagaoka Technical Center) competed in a 2-hour endurance 2-person team. They won the championship in the division for the first time.

SHIMANO Suzuka Road is held at the Suzuka Circuit International Racing Course in Suzuka City, which is famous as a sacred place for motorsports, hosting the F1 and the Suzuka 8-Hour Endurance races. The bicycle road race allows participation from a wide range of contestants, from children to adults and from beginners to top domestic and international racers. The 2-hour endurance team division is the most popular event at SHIMANO Suzuka Road, where members compete in a relay format.



Mr. Shogo Tayama (left), Mr. Kentaro Ohara (right)

News & Topics

03

Largest Mazak private show in North America market took place



DISCOVER 2023 OCT. 9-13

"Learn More. Do More. Make More with Mazak" was the theme of DISCOVER 2023, the Mazak private show held in Kentucky, the United States. A total of 29 machine tools, automation systems and digital technology were presented to more than 2,000 visitors from the United States, Canada, and Mexico, mainly from the North American Job Shop. The entire Kentucky manufacturing facility, including the smart factory and support service such as parts center and spindle repair service was generously opened to the public. It was an event that increased the awareness of the SYNCREX series, the North American-built Swiss turning machines, and the strength and depth of customer base of North America's manufacture industry were sensed.

News & Topics

04

Finish off 2023 with MIMTA and private show DISCOVER 2023 in Japan

Prior to the private show DISCOVER 2023 in Japan, the MIMTA tour was held for the first time in 4 years. MIMTA is an abbreviation that stands for "Mazak International Machine Tool Association." It is a Mazak-style hospitality tour program held to let customers in overseas markets feel closer to "Yamazaki Mazak" and "Japan." The 5-day program of MIMTA tour allows overseas customers to not only tour Mazak's latest production plants and showrooms, but also experience Japanese culture. The tea ceremony experience at the Sukiya-zukuri style state guesthouse -"Zanyuso" allowed guests to enjoy the depth of traditional Japanese culture, and was very well received by guests.



DISCOVER 2023, the last event of 2023 in Japan, was held at the World Technology Center in Minokamo Plant 1. During the three days of the event, the venue was crowded with more than 3,000 visitors. It was an opportunity for guests to see the latest machine tools and technology, such as the integration of INTEGREGX i-200H S, Ez LOADER 30, and the production support software "MAZATROL DX."





THE YAMAZAKI MAZAK MUSEUM OF ART
Collection Showcase

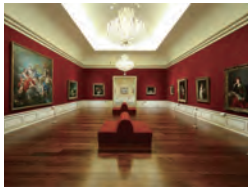
**Etched and engraved vase
with cnidaria design**
GALLÉ, Émile

This is a cased-glass vase constructed in four layers, translucent amber glass, metallic oxide coloring and mottling (salissure), white glass, and reddish brown glass. It is decorated with etched and engraved sea creatures from the phylum cnidaria, including jellyfish, hydras, and sea anemones. As a child, Gallé read scientific books in his father's library and looked at the drawings and diagrams in the encyclopedic periodical, *Le Magasin Pittoresque*. It was not until 1900, however, that phylum cnidaria appeared in his work.

The abstract design of the jellyfish on this vase recalls an illustration in a book that Gallé owned, *Artforms of Nature* by the eminent German biologist, Ernst Haeckel, published in 1899.



GALLÉ, Émile [1846-1904],
"Etched and engraved vase with cnidaria design", 1904-05



M THE YAMAZAKI MAZAK
MUSEUM OF ART

<https://www.mazak-art.com>

The Yamazaki Mazak Museum of Art was opened in April 2010 in Aoi Higashi-ku, the heart of Nagoya in order to contribute to the creation of a rich regional community through art appreciation and, consequently, to the beauty and culture of Japan and the world. The museum possesses and exhibits paintings showing the course of 300 years of French art spanning from the 18th to the 20th centuries collected by museum founder and first museum director Teruyuki Yamazaki (1928 - 2011), as well as Art Nouveau glasswork, furniture, and more. We look forward to seeing you at the museum.

