CYBERWORLD

New Year's Greeting Event Report JIMTOF 2014

Customer Report

- 07 NICHIDAI CORPORATION
- 09 Koizumi Seisakusho Co., Ltd.
- 11 Multicut (Denmark)
- 14 MAZAK PEOPLE
- 15 The Yamazaki Mazak Museum of Art

Ring in the New Year

2015

E

New Year's Greeting

Tomohisa Yamazaki, President of Yamazaki Mazak Corporation

I wish you a Happy New Year.

The previous year was a bright year for the machine tool industry as a whole worldwide. The demand for machine tools in the aerospace and energy industries remained steady although there were regional differences between the United States, in which the economy was strong, Japan, in which the government's economic measures had positive effect, and other parts of the world.

While the manufacturing industry is globalizing, Japan will face a growing need for flexible responses to changes in the environment surrounding corporate management such as decreases in the working population and accompanying increases in labor cost, as well as soaring material prices and exchange rate fluctuations, in order to win global competition in the future.

We always have to consider options to optimize production locations on a global scale including establishment of overseas production facilities and reshoring (return of production to facilities in Japan), and seek to further improve productivity with new technologies and production methods and manufacture high value-added products.

As a leading company of the machine tool sector, Yamazaki Mazak has made active and continuous efforts to develop original products and new production methods so that customers all over the world can trust us as a best manufacturing partner at all times.

The widespread use of new manufacturing technologies, such as 3D printers/additive manufacturing, has created a potential for a dramatic shift from conventional manufacturing methods. Against such a backdrop, we announced hybrid multi-tasking machines that combine new technologies such as metal additive manufacturing with machine tools at JIMTOF in autumn of last year. One was the INTEGREX i-AM series, multi-tasking machines equipped with a metal laser cladding technique, and the other was the VTC FSW series, machine tools equipped with an innovative metal welding technique. They were key products among those which were presented at JIMTOF and were well received by visitors to this trade show. Being a pioneer of multi-tasking machines, such as the INTEGREX series, we also aim to become a leading company in the development of products and applications in the field of hybrid multi-tasking machines in the future.

We also comprehensively redesigned the MAZATROL,

which is our unique CNC system, for the first time in nine years, and announced the MAZATROL SmoothX last year. This CNC system offers enhanced ease of operation with a leading-edge touch panel system, as well as high accuracy and functionality. Machine tools equipped with this new CNC system will also serve as a platform of smart factories to provide comprehensive support for manufacturing of the users including operation management of their plants.

Yamazaki Mazak continues to invest in the expansion of factories and improvement of equipment in production facilities all over the world. The plant in the United States is undergoing expansion for the 22nd time, following the expansion of the Singapore plant in 2014. We plan to actively invest in production facilities in our plants in Japan as well during this year.

For example, the Oguchi Plant and Yamazaki Mazak Minokamo Corporation are scheduled to introduce a processing system that enables continuous unattended operation for 720 hours based on the use of intelligent robots, as well as a state-of-the-art production management system that can control all machines and equipment in an integrated manner. We have named such an integrated intelligent factory the "Mazak iSMART Factory" and will promote deployment of this concept in our production facilities across the globe.

The development departments in our overseas production facilities are developing products that can specifically meet local requirements in a prompt manner. For example, out of the 21 machines we displayed at the IMTS exhibition held in Chicago last year, 10 units were new products developed by the development department in the US which were held in high regard by show attendants. At the 2015 EMO exhibition as well, we plan to exhibit several new machine tools produced by the development department in the UK along with machines developed in Japan.

Yamazaki Mazak will remain a reliable partner for manufacturing that is active in the global arena and can meet the expectations of customers. To this end, we will continue to invest in development, production and marketing and work to create even stronger relationships of mutual trust with customers through the concerted efforts of all Mazak employees throughout the world.

I hope for your continued good health and success and renewed favor in this new year.





Event Report JIMTOF2014

New CNC Machines and Hybrid Multi-tasking Machines Drew Considerable Attention **Introduction of Smooth Technology**

The 27th Japan International Machine Tool Fair (JIMTOF 2014), the largest machine tool exhibition in Asia, was held at the Tokyo Big Sight for six days from October 30 to November 4, 2014. Approximately 136,000 people attended the show over this period, which exceeded the number for the event in the previous year. Yamazaki Mazak exhibited a total of 21 machines including those equipped with the new MAZATROL SmoothX CNC system. The booth was filled with visitors every day who came to see the new models and attend presentations.



The Manufacturing Environment in Japan The monthly orders for the Japanese machine tool industry have exceeded 100 billion yen each month since September 2013. Such momentum was demonstrated by the flood of visitors to JIMTOF. While the willingness to invest in equipment is increasing on a global scale, the requirements of machine tool users are becoming more and more diverse. Differentiation of production technologies is in progress with high value-added processing. On the other hand, demand for cost-effective entry-level machines is also growing in emerging markets, particularly in Asia.

To the Next Stage with

Efficient operation of highly-evolved machine tools requires highly advanced automation and intelligent technologies as well. Downsizing and energy saving technologies to maximize productivity are other major challenges that machine tool manufacturers have to solve.

Optimal Models Proposed in Consideration of Five Technical Trends

The exhibiting companies at JIMTOF 2014 presented new technologies utilizing their advanced technical strengths and expertise to meticulously meet such diversified needs.

()1



- Presentation stage, featuring a huge MAZATROL SmoothX, attracted much attention
- MAZATROL SmoothX demonstration area located in the center of the booth to provide visitors hands-on experience
- KODE9, a car designed by Ken Okuyama who designs Mazak machine tools
- . McLaren Mercedes Formula 1 racing car (Mazak is of an official supplier

The event had five major technical trends: additive manufacturing, intuitive CNC controls. automation, intelligence and energy saving. Exhibitors offered new models using their respective strengths to meet customer requirements

In this context, Mazak introduced new models in response to each of the five technical trends. In addition to the exhibition of the machines themselves, we also employed demonstrations and presentations to introduce our innovative technologies in a comprehensive manner.

Event Report **JIMTOF 2014**



Introduction of the MAZATROL SmoothX CNC in Jana

SmoothX Demonstration Area Always had a Large Number of Visitors

Mazak exhibited its latest models including machines equipped with the SmoothX CNC under the theme of "To the Next Stage with M." This was done by focusing on Smooth Technology, of which the innovative SmoothX CNC is the core component. All Mazak staff wore a Smooth Technology lapel badge, and the machine operators and other application engineers wore uniforms featuring a SmoothX embroidered logo. In this way, the efforts of all staff in the booth were united to introduce the new CNC.

On the "Smooth Technology Stage" at the front entrance, we introduced total solutions that can realize smooth plant operations and dramatic growth in a comprehensive manner. In the Mazatrol SmoothX Stage demonstration area, the features of the new CNC machine were presented in a more practical manner.

Two Models of Hybrid Multi-Tasking Machines Presented for the First Time Among our machines exhibited in the event,

combining machining technology and next-generation processing technology received particularly large attention. One was the INTEGREX i AM, which uses 3D additive manufacturing technology for metal, and the other was the VTC-530/20 FSW, which is integrated with friction stir welding technology. While the former model incorporates one of the newest technological trends of this year's event, the latter is the world's first model that combines friction stir welding technology with machining. The two models represent a result of the evolution and broadening of "DONE IN ONE," a process integration concept that Mazak has used for many years. A visitor expressed high expectations for the machines, saying "Both the SmoothX and the hybrid multi-tasking machines are ambitious products, which are typical of Mazak machines. I hope that Mazak will continue to provide innovative machines developed with all of the technologies accumulated in the company." In fact, we

placed emphasis on highlighting our

the two hybrid multi-tasking machines



INTEGREX i-400 AM demonstration which attracted the most attention out of the 21 machines on display

technological capacity at this JIMTOF.

Technical Presentations were Given Daily

As a specific initiative to highlight our technological capabilities, we organized the "Application Academy" for the first time at this JIMTOF. This initiative aimed to introduce solutions for customers' problems as to parts processing, and provided presentations on such subjects as cutting-edge multi-tasking machines and intelligent machine tools. Seven engineering PhDs from Mazak delivered the presentations on a rotation basis. A 15-minute presentation was provided 11 times every day. The special section with 18 seats was always crowded for every presentation



The Excitement of JIMTOF at Mazak **JIMTOF 2014 Encore Fair**

JIMTOF2014 Encore Fair

We held the JIMTOF 2014 Encore Fair for three days from December 4 to 6, 2014 at the World Technology Center, Yamazaki Mazak Minokamo, and Minokamo Plant 2. This was to give an opportunity to those who had no opportunity to visit JIMTOF 2014 and those who wanted to check the new models again. This event featured a different presentation approach from our booth at Tokyo Big Sight, which allowed visitors to see machines in operation in the factories in addition to the machines that had been exhibited at JIMTOF. A total of approximately 2,500 people visited the event during the three days.



The number of inquiries we received during JIMTOF 2014 increased by 2.3 times in comparison with the previous exhibition, which suggested a growing willingness to invest in equipment against the backdrop of the robust Japanese economy. The momentum was also demonstrated by the fact that many persons visited the Encore Fair to check the models they saw at JIMTOF once again. At the World Technology Center, the two types of hybrid multi-tasking machines, as well as the new MAZATROL SmoothX CNC. attracted a crowd every day as they did at JIMTOF.

factories themselves were toured by the visitors. To make maximum use of this opportunity, a route for visitors was arranged at the main Minokamo plant to present the assembly processes of various models. Additionally, an area was arranged to introduce other production facilities, including the Oguchi Plant and Yamazaki Mazak Seiko, where employees from these facilities each made presentations about their own worksites. Similarly, staff from several areas at the main Minokamo plant introduced their respective workplaces. It is expected that these employees can increase their pride in their jobs and motivation for their work through the presentation of their own workplaces.

Introduction of Factories by Employees A feature of the Encore Fair was that the

MIMTA - Introducing Japan's New Technologies to Guests from Around the World



customers



uests looking at the latest machines in the World Technology Showroo

Customers' Comments



We Made Progress in our **Selection of a new Machine**

Mr. Yoshio Ooi, Company Director Mr Takeshi Chikaishi Environmental Control Sub-Section Manager

FUJI FLEX Co., Ltd.

As always, Yamazaki Mazak's booth is bustling with activity. The company keeps ahead of the times, and just seeing its cutting-edge machines make us excited, such as the new-generation Mazatrol that can be operated just like a smartphone

We have come to this JIMTOF to collect information on CNC turning with bar feeders and to select a specific model. We are considering coordination with the Mazak CNC turning centers that are already in operation at our plant in order to establish a more productive system

As we anticipate machines to start working effectively on the day of installation, we value the start-up time when we consider installation of a machine. In that sense, we have had progress in the selection of a model that meets our requirement at this exhibition.



Searching for Machines That Help Us Become No. 1

Fuso Rubber Co., Ltd. (from left) Mr. Kenjiro Tanaka, Plant Manager Mr. Keizo Yamada. Production Department

Our company mainly engages in processing of special materials such as rubber, urethane and silicone, and therefore we depend on the skills and expertise of our employees. Even so, we always search for tools that will help our staff process such materials skillfully. We have come to this event to collect information on such products. Appropriate tools are difficult to select, and so are appropriate machines. Accordingly, when we purchase a Mazak machine, we always ask Mazak to modify it to our specifications. It is the strength of Mazak to offer such a wide range of options and flexible responses

We are confident as a manufacturer specializing in processing of rubber-related special materials, and our goal is to become the clear number one in some fields. We hope that Mazak continues to produce machines that can contribute to our efforts to achieve this goal



visitors can closely see machines that were too large to be displayed at JIMTOF

Presentations of New Models and the New **CNC System**

Presentations were given to introduce in detail the hybrid multi-tasking machines and the MAZATROL SmoothX CNC, as well as the intelligent functions of current models. The presentations were on average 20 minutes long, slightly longer than those given at our JIMTOF booth. Seven sessions were organized each day, and the seats for 50 persons were always filled. Along with the exhibition of the machines, the presentations gave visitors a good opportunity to learn the technical capacity of Mazak.

Prior to the Encore Fair, we organized a Mazak International Machine Tool Association (MIMTA) Tour for three days from December 1 to 3. 2014. The MIMTA Tour is an event to invite our customers from other countries to Japan and give them opportunities to visit Mazak's showrooms and factories, as well as to learn more about Japanese culture. This event, which is held several times each year, receives a favorable reception from many



Explanation given to guests by Mazak staff during factory visit

International quests experience various aspects of Japanese cultur



01



its production line.

zone in the factory.

40%."

Sense of Unity

Address Number of employees www.nichidai.ip



NICHIDAI, was established in Osaka in 1959. Then. NICHIDAI was founded in 1967 and moved its head office/factory to the current location in 1971. The mainstay is the die business and represents half of the company's sales. Dies are components that allow metal at room temperature to be pressed into a complex part profile in a single processing procedure without machining.

on high-accuracy and high-strength precision dies. Manufacturing of the dies typically involves electrical discharge machining and requires the use of electrodes. NICHIDAI decided to use Mazak's QUICK TURN 10 CNC Turning Centers, which had been introduced 30 years ago, to produce the electrodes. Since then, other Mazak machines including a M4, the QUICK TURN NEXUS series and INTEGREX series have also been installed in the Ujitawara Factory. The factory's "Mazak Street" in its center is composed of 15 CNC lathes and 5 multi-tasking machines. Even the M4 machine, which has been used for many years, has been retrofitted and is still as active and effective as the newer units.



Operator using M4, which still works effectively

Skiving, Widely discussed at JIMTOF, Under Development "Production of complex-shaped dies used to require electric discharge machines and

Tanaka Gokin Seisakusho, the precursor of

The performance of die processing depends



Customer Report **U**

In-Process Time Reduced by 40% with 5 Multi-tasking Machines



NICHIDAI CORPORATION, which is based in Kyoto Prefecture, engages in the development, production and marketing of precision dies, as well as its peripheral businesses, and offers total engineering with a focus on the three main business segments of dies, assembly and heat-exchanger components. The mainstay die business is in operation in the Ujitawara Factory, which is equipped with a line composed of multiple Mazak machines. Various types of our multi-tasking machines support NICHIDAI in the manufacturing of high-precision dies.







01. Operator setting up INTEGREX i-200 02. Production line revamped by introducing 5 INTEGREXs - "Mazak Street" 03. Mr. Keiji Hatanaka, Director (middle of front row) with employees



NICHIDAI CORPORATION Ujitawara Factory

Customer Report **U** Japan NICHIDAI CORPORATION

: 14 Shiotani, Zenjoji, Ujitawara-cho, Tsuzuki-gun, Kyoto : 567 (consolidated)

machining centers. These days, as machining is used even for carbide dies, it is more common to employ machining with 5-axis processing for the production of dies from steel materials," states Mr. Takahiro Higuchi, General Manager of the Production Department, about the potential of machining in die production. To materialize this potential

NICHIDAI has worked on radical renovation of

As Mr. Higuchi indicates, when a company works to reduce in-process time and improve quality while responding to today's demand for multi-product manufacturing, equipment innovation is urgently needed. Based on this idea, NICHIDAI removed eight machines including NC milling machines and introduced the INTEGREX i-200 and i-300 in July 2014. The new machines are mixed with an existing i-400 model and two retrofitted INTEGREX 35 units to form a major combined machining

Among them, the INTEGREX i series machines is being used to develop skiving processing, which was widely discussed at JIMTOF 2014, as an advanced measure. The company considers that "start of the full operation of the system comprised of five machines may reduce in-process time by

Baseball Team Helps Employees Develop a

"While company sports teams were dissolved or suspended their activities one after another following the global financial crisis, we have managed to maintain our team," Mr. Keiji Hatanaka said proudly, gesturing toward the members of their baseball club practicing on the field after finishing their work. "While they are required to give first priority to work, all of the team members participate in daily practice

after finishing their duties in the production line. It is our style since the foundation of the club is to work efficiently and enjoy private life."



Mr. Hatanaka, Director, describing the history of the baseball c as if he is talking about the growth of his child

The team participated in the Nihon Amateur Baseball Championship as the representative of Kyoto Prefecture in 2014, and put up a good fight but lost by just one run in the second round. "While only a few dozen people came to cheer the team right after it was formed, now there are around 3,000 supporters. In addition to employees, staff in our partner companies and local residents also offer assistance to the team. I hope this sense of unity is actively used in our business as well," said Mr. Hatanaka

The pitcher who throws strikes also operates a Mazak machine in the factory. These skills seem to be a key to the production of complex, precise dies.



n with constant high rankings in annual tournamer





 $\bigcirc 1$

Toshihiro Koizumi President Address Number of employees : 17

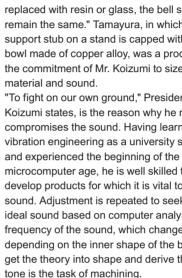


The history of Koizumi Seisakusho dates back to 1889 when the production of fine arts and crafts for export was launched in the era of Japonism, which later influenced Art Nouveau. It was also the year when Takaoka was given official status as a city. The company was established on February 22 of the same year, and began the manufacturing of copperware, which was a local industry. After World War II, the company started once again to produce copperware, Buddhist altar fittings and ornaments for export. Koizumi Seisakusho was incorporated in 1988 when it moved its head office and factory to the Doki industrial complex. It was also the 100th anniversary of its foundation. In 2011, the company launched its original brand "Koizumiya" and has since then offered various items that pursue a "pleasant sound." Koizumi Seisakusho currently receives nearly 90% of its sales from Buddhist altar fittings. "As we are a metal processor, we want to focus on what can be produced only with metal," says Mr. Toshihiro Koizumi, President.

Recently, they released a "Tamayura"

upside-down.

Buddhist alter bell, which unlike other bell is







President's Commitment to Size, Material and Sound

stated Mr. Koizumi about his passion for product develope

When we think of some idea, we immediately make trial samples,"

"As downsizing is the norm, it does not make sense that only the bell is still large. Even if the materials of other Buddhist altar fittings are

A Buddhist altar bell "Tamayura" In the factory, a total of seven machines including a QUICK TURN 15, QUICK TURN NEXUS 200-II and QUICK TURN SMART 200 are operated at full capacity. "Unlike mass produced industrial products, the rounded surfaces is vital for the fine art and craft products of our company. I am charmed by the performance of Mazatrol, which can connect radii easily and precisely. The operating efficiency is clearly different before and after the introduction of the machine,"

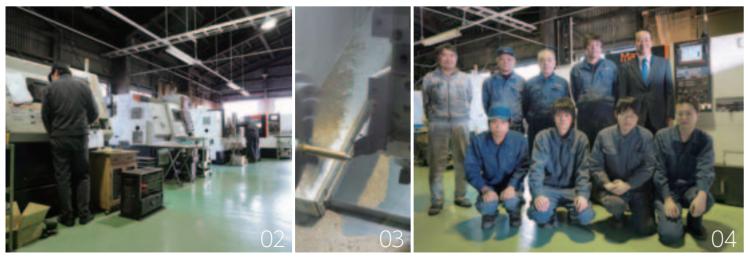
Customer Report 02



Aiming to Manufacture What Can Last Over a Century

Japan Koizumi Seisakusho Co., Ltd.

Most of the bronze statues of popular characters set up in Japan by local municipalities and shopping districts for revitalization of their areas are produced in Takaoka City, Toyama Prefecture. Takaoka is a major production area of copperware, accounting for approximately 95% of the domestic production value. Koizumi Seisakusho Co., Ltd., which engages in casting and processing of copper alloy, is a unique company in the Doki Industrial Complex in Takaoka, where major copperware companies are located. A keyword for the company is "commitment to sound." The machining that determines the tone, a vital factor of their products, is handled exclusively by Mazak machines



01. Desktop Buddhist altar bell "pear." The vessel is made of brass and the wooden striker fits on top. The QUICK TURN is the only machine used for machining

02. View of the factory - space heaters are widely used in this part of Japan during the winter 03. Machining by QUICK TURN SMART 200

04. Mr. Toshihiro Koizumi. President (far right of back row) and employees

Koizumi Seisakusho Co., Ltd. : 57-5 Toidesakae-machi, Takaoka City, Toyama Prefecture

Customer Report UZ Japan Koizumi Seisakusho Co., Ltd.

replaced with resin or glass, the bell should remain the same." Tamayura, in which a support stub on a stand is capped with a small bowl made of copper alloy, was a product of the commitment of Mr. Koizumi to size,

"To fight on our own ground," President Koizumi states, is the reason why he never compromises the sound. Having learned vibration engineering as a university student microcomputer age, he is well skilled to develop products for which it is vital to make sound. Adjustment is repeated to seek the ideal sound based on computer analysis of the frequency of the sound, which changes depending on the inner shape of the bell. To get the theory into shape and derive the actual



Restored bell of Dragon Gate in Pavellons Güell

Restoration of a Bell in Gaudi's Work Attracted Attention to Companys Technical Capability

The technical capability of Koizumi Seisakusho as to sound gained the trust of the Gaudí Research Institute, which requested the company to restore a bell attached to the Dragon Gate in Pavellons Güell (Güell pavilions) designed by Antoni Gaudí. The company accomplished restoration of the bell in one year and finished the work in 2007. The skills and sensitivity of the craftsmen of Koizumi developed through the production of Buddhist altar bells were combined with machining by Mazak machines to provide this excellent performance.

Gaudí completed the buildings in the 1880s, which is also the period when the predecessor of Koizumi Seisakusho was founded. "It is an amazing coincidence. As our company has a history of more than 100 years, we want to manufacture something that can last over a century." We look forward to hearing the sound of their future products filled with the ambition of Mr. Koizumi.

 Desktop bell "Tenkyu" (left) and "Melody of Forest," which plays melody in the eight-tone scal



CNC machining.

environment.

exceptionally lean manufacturing

"From the very start we were thinking lean.

using automation to compete with low cost

Multicut Denmark CEO · Lars B. Rasmussen Address Number of employees : 115

Multicut

en.multicut.lt

Mr. Von Haven.



The cell specializes in one-offs with the working."

each shift," says Mr. Von Haven. larger parts, such as wind turbine components. There is no cost to components strict control of finished part cost."

► The wind turbine sector continues to be a large customer for Multicut

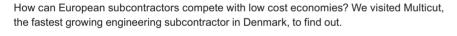
Customer Report **U3**

Lean and mean at Multicut



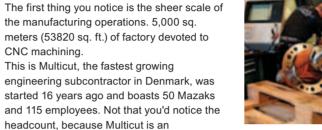
Denmark Multicut







- 01. Multicut's new facility will double machining capacity and include up to five Mazak HCN-12800 II horizontal machining centers linked by a PALLETECH SYSTEM
- 02. Production Chief Jens Von Haven watches the cutting on Multicut's new VARIAXIS i-700
- 03. Large workpiece for crane components
- 04. Multicut organizes its machining operations in a street system with Mazak machines linked by PALLETCH SYSTEMS



economies." savs Production Chief Jens Von Haven. "The philosophy of this business is to do it right and compete, speed with no compromise on quality. For us, in Denmark, labor is very expensive, which means we have to automate to reduce that cost." Fast forward to the present and Multicut now manufactures components across a wide variety of sectors, from aerospace through to defense, wind turbine components and tractor parts, cutting more than 100 tons of chips per week from its Vildbjerg facility alone Production is organized on a street system,

with sawing the first port of call for visitors, who can view a selection of Mazak turning centers, including a QUICK TURN NEXUS 450 II M and a QUICK TURN NEXUS 100, going about their work.

Further into the factory, the extent of this investment in automation begins to become more apparent. In the next street, 14 MULTIPLEX machines, all complete with an automated material handling system, produce complex turned and milled parts up to 450mm (17.72") in diameter.

The company also uses stand-alone manufacturing cells for specific jobs. Its latest addition is a cell that is comprised of a 4-axis HORIZONTAL CENTER NEXUS 5000-III capable of 1G of acceleration and a 5-axis VARIAXIS i-700. linked with a PALLETECH SYSTEM. "We use the 4-axis machine to

Customer Report 03 Denmark Multicut

ESTLANDSVEJ 2. DK-7480 VILDBJERG

rough cut and the 5-axis for finishing," says



Components for construction machiner

pallets and set-ups left in the PALLETECH SYSTEM ready for the next order. "We have an aerospace customer who orders 200 parts per year, both aluminum and titanium, always one-offs," he says. "Because we have left the fixtures and pallets in place we can just call it up and run another part off when the order comes in. There is no extra cost from the set-up, just tooling, which makes it a very self-sufficient and cost-effective way of

Nearby, is a stand-alone manufacturing cell producing sleeves for wind turbine blades. The cell comprises a MULTIPLEX 6300 with a simple magnet lifting and stacking steel bars which are, in turn placed in the machine by a robot. "The cell runs 16-17 hours per day completely unmanned, making 200 parts

Pride of place however goes to the longest street in the factory, a gigantic 50 meter (164.04 ft.) PALLETECH HIGH RISE linking five HORIZONTAL CENTER NEXUS 6800 IIs. "We have 68 pallets with fixtures and completed tool package ready and set-up for

from the fixtures, which means we can keep

This almost constant drive to monitor and control costs also includes a strict control of when and where individual tools are used. "All the tools are micro-chipped with the Mazak tool ID system. We know that this tool has only been used to cut aluminum, which means we know the tool life. We also use the Mazak tool management system to monitor the status of all tools in the magazine and determine which tool is required for each production run."

Most importantly, maximum machine efficiency is maintained by ensuring that the PALLETECH HIGH RISE line is only cutting orders with existing fixtures and set-ups. "We make our own fixtures from standardized modular parts which can be put together very quickly like a LEGO block. This enables rapid fixturing of workpieces which means no added cost from the fixtures, shorter lead times and reduced manufacturing costs, particularly for small batch runs." The next stage in Multicut's development will be opening of a new 5,000 sq. meter (53820 sq. ft.) facility adjacent to the current plant, a project which broke ground in October 2013 doubling the size of the Multicut facility.

"The new facility will double our size and enable us to win more work, particularly from the wind turbine sector," says Mr. Von Haven. "The facility will house three Mazak HORIZONTAL CENTER NEXUS 12800-II horizontal machining centers linked by a PALLETECH SYSTEM. We also have the option to put two more machines into the street to increase capacity even further."



MAZAK PEOPLE

Yamazaki India/Service Department

Mr.Kedar Paknikar

To be a spindle designer and developer — this is my dream

ROFILE » Kedar Paknikar

Born in Pune, India, in 1975, Mr. Kedar Paknikar duated from the Machine Tool Maintena hanic technical course with 1st rank from the Pune strial Training Institute in 1993. He joined Yamaz Azak in 2005 as a service engineer. He likes listening isic and enjoys craftwork on holidays

Yamazaki Mazak operates many bases in Japan and other countries for various activities, including production, sales and before and after sales service and support. MAZAK PEOPLE introduces the persons who are active at the forefront of the Group companies.

This issue features Mr. Kedar Paknikar, who is in charge of the spindle repair department.

——What made you decide to work for YAMAZAKI MAZAK?

I would say because of Thomas Alva Edison. When I was a child, I read about him and came to admire him. Since then, I have been interested in repairing machines or other equipment. After I graduated from school in 1993, I started to work as an engineer for machine tools and gained experience in different companies. During that period, I not only did machine repairing but also CNC maintenance as well, and those experiences got me thinking about working for Yamazaki Mazak.

At first, I did machine installation, setup and repairing. During that time, I learned all about Mazak machine tools including mechanical elements and technical knowledge which got me interested in repairing the spindle, because it is the heart of the machine itself. In 2011, the Mazak India Technology Center established a new spindle repair facility and luckily enough, I was able to work there as a member of the spindle repair team, where I still am now.



During the establishing of the spindle repair facility in India - not only was this the first time to have a spindle repair facility, but the technology center didn't have any production area at that moment. So we faced many difficulties in component quality, cost, delivery, parts preparations, finding good suppliers, and many others. At that moment, I felt I should have had all the necessary work experience, not only for repairing but also all production processes including parts procurement, quality control

as well as production management.

I am always keeping in mind to provide high-quality spindle repair service so that all our customers will be satisfied. To extend my work capability, I made a goal for myself to be able to repair the spindles for all turning centers, vertical machining centers, and horizontal machining centers. During this trial, I repaired more than 100 different spindles according to

Mazak's quality standard. Thanks to these efforts, I became the manager of the spindle repair facility. This was a very memorable moment for me.

— Do you have any current or future goals? Recently, we are in the process of developing the capability to repair Capto Mill spindles and drawbars for the INTEGREX series. For my future, if I have the opportunity, I would like to work in the spindle design department to develop new spindles using my experience accumulated over 21 years.



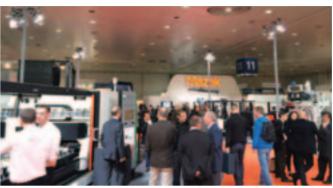
Make your dream come true — Mr. Kedar Paknikar keeps holding his passion for manufacturing to realize his dream. He is not only a first class engineer but still working hard to go on to the next step. He was also just married on November 2014. Congratulations!



News & Topics

Mazak at EuroBLECH, an International Sheet Metal Exhibition in Germanv

EuroBLECH 2014, the 23rd International Sheet Metal Working Technology Exhibition was held for five days from October 21 to 25, 2014 in Hanover, Germany. EuroBLECH, which is one of the world's largest trade shows related to the sheet metal processing industry, does not only introduce the latest technological trends in the sheet metal processing industry in a comprehensive manner but also serves as a business indicator of the industry. The exhibition with participation of 1,573 companies from 38 countries received approximately 59,800 visitors in total during the show period.



Yamazaki Mazak occupied an area of 1,023 square meters (11,011 sq. ft.) in the No. 11 Building. A total of six machines were displayed. including the following five laser processing machines: TUBE GEAR 150, a new model pipe processing machine for mass production; OPTIPLEX NEXUS 3015, a standard laser processing machine; OPTIPLEX 4020 FIBER II, which can also handle large sheets; and SUPER TURBO-X 3015, which is widely sold worldwide, as well as the VERTICAL CENTER SMART 430A FSW, a hybrid multi-tasking machine equipped with friction stir welding technology.

A Wide Range of Equipment on Display

The companies participating in the show aggressively exhibited fiber laser machines in the field of laser processing machines. This indicates a global trend in the industry. Mazak's booth also received

New Entrance of Company Headquarters



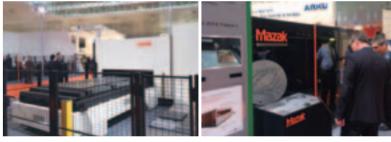
The next time you visit company headquarters in Oguchi, Japan, you will be welcomed by a new entrance. This was completed in November 2014 and is designed to provide even better access for visitors.



many inquiries from visitors about fiber laser machines. In addition to the laser machines themselves, automation, pallet-sheet exchange and various other systems were also displayed. Mazak exhibited the OPTIPLEX 4020 FIBER II equipped with stockers made by TEKMAG to show its commitment to automation of large sheet processing.

New Technology

Just as the VTC-530/20 FSW drew considerable attention at JIMTOF 2014, the VERTICAL CENTER SMART 430A FSW also attracted much interest, and the space in front of the machine was crowded with people listening to the presentation made by the operator. This totally new processing technology seems to have made a strong impression on companies in the aerospace, ship-building, automotive and other industries



Laser processing machine and sample workpieces

This Issue's Cover



Desktop bell manufactured by Koizumi Seisakusho Co., Ltd., which is introduced in this issue's customer report. The cover photo was taken at the reception desk of the Mazak House, our accommodation facilities for quests located a 5 minute walk from company headquarters in Oguchi. This facility features a large number of guest rooms and is equipped with a restaurant, bar, large public bath with Jacuzzi and sauna room to ensure a comfortable stay for all visitors.



The Yamazaki Mazak Museum of Art was opened in April 2010 in 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, as well as Art Nouveau glasswork, furniture, and more. We look forward to seeing you at the museum.



THE YAMAZAKI MAZAK MUSEUM OF ART

Hector Guimard - Garden Vase

Melding the organic curves of flowers and other plants, the beauty of these fluid lines is like a bird stretching its wings. This cast-iron garden vase weighs an impressive 37 kg (82 lbs.) and comes from a period when wrought iron was a new material that was garnering much attention. Guimard, the designer of this work, is known as a leading Art Nouveau architect in France, and is an essential part of that country's architectural history. The work that first brought him to prominence was a six-story apartment house named "Castel Beranger," which won Le Concours de Façades de la Ville de Paris (City of Paris Facade Competition) in 1899. The amalgamation of materials that it combined, such as tile, brick, and iron, not to mention the undulating cast-iron work covering its air ducts and balconies, was considered high fashion at the time. Today it is a popular tourist attraction, however the public of the day criticized its appearance as "incoherent and creepy," with the epithet "not Castel Beranger but Castel Déranger (Castel Disturbed)."

Probably the most famous examples of Guimard's work are the entrances to the Paris metro stations. Their cast-iron details, which had been freely transformed into shapes reminiscent of flowing vines, created a unique architectural style at the end of the last century. They have been designated as historical structures by the City of Paris and are still in use today.

GUIMARD, Hector (1867-1942) Garden Vase (around 1905)

THE YAMAZAKI MAZAK MUSEUM OF ART

Nicolas de Largilliere - Madame de Jassaud and Her Children

This woman in a deep red dress is Madame de Jassaud, who was born the daughter of a rich textile merchant of Paris and married into an aristocratic family. In this portrait, painted five years after her marriage, the two girls portrayed with her are her daughters. A blue hyacinth flower held reverently in the elder daughter's left hand symbolizes fidelity. The unique standing shape of Madame Jassaud's hair is called the fontange style, which originated with the Duchesse de Fontanges, a mistress of Louis XIV. When her hair became disheveled during a hunting trip, she tied it up with a garter ribbon, which caught the eye of the king and became very popular in his court during the latter half of the 17th century. Largilliere, who painted this picture, was most active from the late 17th century to the middle of the 18th century, during the reigns of Louis XIV and XV, and his flair for representing the abundance of wealth in a charming way was much loved by the rich bourgeoisies. He is known as the most successful portrait painter of that period.

LARGILLIERE, Nicolas de (1656-1746) Madame de Jassaud and Her Children (around 1707), oil on canvas

