CYBER WORLD

New Year's Greeting

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2017 No. 50 E

New Year's Greeting

Tomohisa Yamazaki,
President of Yamazaki Mazak Corporation

2017
New Year's Greeting

I wish you a Happy New Year.

In the previous year, there were two events with surprising results for most people in the world, namely the UK's decision to leave the EU in June, the so-called Brexit, and the victory of Donald Trump in the US presidential election in November. Right after both of these events, the stock and foreign exchange markets fluctuated violently. Such circumstances made companies cautious about capital investment, and the previous year was harsh in general for the machine tool industry. On the other hand, there was also some bright news for the industry in the second half of the year, such as IMTS, which was held in the United States in September and JIMTOF, which was held in Japan in November, both received a record high number of visitors.

While commitment to the Internet of Things (IoT) has been expanding in various industries in recent years, the machine tool industry is no exception; both IMTS and JIMTOF held last year included many IoT exhibits. The fact that the number of visitors to these trade shows was a record high even under such unfavorable market conditions seems to indicate increasing expectations for the IoT.

In this context, Yamazaki Mazak announced the release of the MAZAK SMARTBOX™ in the US and Japan. This network connection device, which can bring the IoT to a factory in a safe manner, was jointly developed with Cisco Systems Inc., a leading company in the IT industry, for the introduction of the IoT into the manufacturing industry. The product is compliant with MTConnect®, an open communications protocol developed in the United States, and can be used for not only Mazak machine tools but also various other equipment and devices to allow all components of a factory to be connected. We believe that this MAZAK SMARTBOX™ can make a great contribution to the wide spread use of the IoT in manufacturing. In the future, we will promote the development of applications in the cloud using big data collected through the MAZAK SMARTBOX™ for the improvement of productivity and minimization of machine downtime.

Starting with the introduction of NC machine tools in the early years, Yamazaki Mazak has actively made investments in its equipment for technological innovation including FMS-based unattended systems and CIM plants. In the future, we need to make use of the technologies developed by Mazak over many years, as well as Information and Communication Technologies (ICT) that have evolved rapidly in recent years, to proceed to higher levels. The utilization of ICT is also a crucial subject in our capital investment. Yamazaki Mazak began to operate a highly automated Cyber Factory in 1998. The automation technologies and plant management expertise accumulated through the operation of the Cyber Factory have further evolved into the iSMART Factory™. The introduction of the iSMART Factory™ has already started in the United States and the company headquarters in a phased manner, and we also plan to accelerate the introduction to other production sites in Japan and outside of Japan as well. I am confident that we can also meet various customer requirements related to the IoT more than ever by actively incorporating IoT-related technologies into our capital investment and accumulating the relevant technologies and expertise.

With respect to the development of machine tools, while we are offering machines and CNC systems compatible with the IoT, we also continue to actively develop hybrid multi-tasking machines, in which different machining techniques are combined with conventional machining. Mazak displayed four hybrid multi-tasking machines at JIMTOF last year to differentiate our efforts from those of other companies, and accordingly drew considerable attention from visitors. We will also maintain our commitment to the technical innovation of machine tools including hybrid multi-tasking machines to contribute to the development of the worldwide manufacturing industry.

Although the economic outlook continues to be uncertain this year, Yamazaki Mazak will work diligently to create a new future of manufacturing with customers through the concerted efforts of all group employees.

Last but not least, I hope for your continued good health and success and renewed favor in this New Year.

JIMTOF 2016 Event Report

The 28th Japan International Machine Tool Fair (JIMTOF 2016), one of the largest machine tool exhibitions in Asia, was held at the Tokyo Big Sight for six days from November 17 to 22, 2016. The number of exhibitors, including international companies, reached a record high, and the trade exhibition received 147,600 visitors in total, which was also a record attendance. JIMTOF is always used as an opportunity for exhibitors to announce their new technologies and products, and in the 2016 event, their commitment to the IoT and new products that combine different processing techniques such as “additive manufacturing” particularly attracted attention even before the opening.

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01. Innovative technologies such as the IoT and Smooth Technology were introduced on the presentation stage in the front of the booth
02. All exhibited machines were connected to a network via the MAZAK SMARTBOX™
03. Compact multiple pallet stocker system MPP 500
04. INTEGREX i-200S AM equipped with new additive manufacturing technology attracted attention from many visitors
05. Sample components produced by hybrid multi-tasking machines
06. Mazak's new technologies were presented in "Solution seminars"
07. iSMART Factory™ was explained in a comprehensive manner in the MAZAK IoT LIVE! area

Mazak exhibited a total of 21 machines including four models of hybrid multi-tasking machines in its booth with the theme of "SMOOTH MACHINING / SMART MANUFACTURING - Innovation Starts Here." The whole booth was organized like a iSMART Factory™ to present innovative solutions based on the IoT and Smooth Technology.

An area to demonstrate IoT-based solutions named "MAZAK IoT LIVE!" was located in the center of the booth. The image of an iSMART Factory™ using the IoT was introduced to visitors in a comprehensive manner with real-time monitoring of machines in the booth and the Oguchi Plant at headquarters as well as demonstrations of various types of software.
Solution seminars concerning the improvement of productivity by using Mazak's cutting-edge combined processing techniques and the IoT were also held in the booth. The seminars were always well attended with visitors listening closely to the presentations taking many notes.

Announcement of collaboration with Cisco Systems G.K., an IT giant − Release of MAZAK SMARTBOX™ in Japan −

Mazak announced collaboration with Cisco Systems G.K. ("Cisco"), a leading company in the IT industry, for the promotion of the introduction of the IoT into the manufacturing industry and the development of applications in the cloud on November 16, the day before the opening of JIMTOF. The MAZAK SMARTBOX™, which was developed jointly with Cisco, was exhibited at JIMTOF, and released to the Japanese market. The MAZAK SMARTBOX™ enables equipment conforming to MTConnect®, an open communications protocol for the manufacturing industry, to be connected regardless of manufacturer and whether the model is old or new while ensuring a high level of cyber security. All machines exhibited in the booth were connected using the MAZAK SMARTBOX™ and the operation status was displayed on a monitor, which attracted considerable attention from visitors in the manufacturing industry who were looking to bring the IoT to their plants in a safe manner.

Further evolution of Smooth Technology

At this JIMTOF event, we classified Smooth Technology systems into six categories: "Advanced machining," "Measurement and compensation," "Tool data management," "Utilization monitoring and analysis," "Process planning" and "Automation systems" and proposed them as solutions for the improved productivity of machine tools. Applications such as gear skiving by a multi-tasking machine were demonstrated for “Advanced machining," and the compact multi-level pallet stocker system MPP (Multi Pallet Pool) 500 and a cell system linking two FF-5000 horizontal machining centers were displayed as automation systems. The visitors who experienced various Smooth Technology applications at the MAZATROL SmoothCNC section were impressed at its intuitive operation.

Hybrid multi-tasking machines attracted considerable attention

Four hybrid multi-tasking machine models that combine machining with different processing technologies were exhibited. Three of the models were from the AM series, which incorporate additive manufacturing technology: the VC-500 AM (laser deposition, produced by Mazak Corporation in the US), the INTEGREX i-200S AM (multi-laser deposition) and the VARIAXIS j-600 AM (wire arc). These machines demonstrated microfabrication, cladding, material build-up as well as conventional subtractive machining in a single machine setup. The VTC-530/20 FSW from the FSW series, is equipped with friction-stir welding technology. It is equipped with a newly developed FSW tool automatic exchange function for increased versatility. The practical machining applications of the four hybrid multi-tasking machines that can meet a diverse range of production requirements attracted much attention from visitors.

Mazak is looking forward to showing how Smooth Technology and total solutions based on IoT as introduced at JIMTOF 2016 can increase your productivity.

Customer Report 01

Expanding the potential of flanges in new markets

Japan Shimoda Iron Works Co., Ltd.

Shimoda Iron Works Co., Ltd., a major manufacturer and distributor of forged flanges and fittings based in Aioi City, Hyogo, started as a subcontractor for a local shipyard. Its operation began with sea-related business and has grown to cover land and air-related businesses as well. The company has established a unique position through the expansion of its sales channels mainly in heavy industry in Japan and other countries by responding to changes in the market.

01. Production line of many Mazak MEGATURN SMART CNC VTLs
02. Quality-oriented approach is thoroughly pursued by every employee
03. Example flange components manufactured by Shimoda
04. Mr. Tomoya Shimoda, Chairman (front row, third from left), Mr. Shinji Shimoda, President (front row, fourth from left) and employees

SHIMODA IRON WORKS CO.,LTD.

Executive Chairman : Tomoya Shimoda
President : Shinji Shimoda
Address : 250, Ryusen-cho, Aioi City, Hyogo
Number of employees : 100

www.shimoda-flg.co.jp

Fitting & Forging Producer
SHIMODA

Shimoda Iron Works was started by the father of Mr. Tomoya Shimoda, Chairman, in 1946 who at that time was working for Harima Shipbuilding & Engineering Co., Ltd. (current IHI Corporation), which was the only shipbuilder in the city at that time. The company manufactured ship components to be delivered to the shipbuilder and was incorporated as Shimoda Iron Works Co., Ltd. in 1948.

The effective combination of the passion of Mr. Tomoya Shimoda, Chairman (right) and the clear vision of Mr. Shinji Shimoda, President has created a new era for the company

In the era when shipbuilding was booming, Shimoda actively invested in its facilities and equipment. Serving as a plant specializing in flanges, the company developed a streamlined system from material procurement to delivery. However, due to the recession in the shipbuilding industry starting in 1974, sales fell by 50%. Facing a threat to the existence of the company, Mr. Shimoda carried out market research in North America to find new customers.
In the following year, Shimoda promoted active sales activities for the "shift from the sea to the land" for the "post-shipbuilding" operation, and developed business for the petroleum refinery industry as its second pillar. A significant order of large flanges for pipelines in Alaska was an outcome of these efforts. Nevertheless, while piping flanges represented nearly 70% of the sales for the company for a while, the business began to decline in the late 1990s and put Shimoda in a tough spot again.

Acquisition of certificates that are very challenging to obtain was used as an opportunity for personnel training

The two major changes in the business environment forced Shimoda to turn in a different direction. As a result, the company decided to enter other markets actively while making use of the expertise cultivated in the past from the three aspects of "expanding, departing from and surpassing the flange business." In the strategy, "while continuously setting flanges as our flagship products, we aim to expand our operation by getting into the markets of power, construction, civil engineering, construction machinery and medical equipment," said Mr. Shinji Shimoda, President.
Mr. Tomoya Shimoda, Chairman emphasized the quality-oriented approach of the company, stating "We constantly stock every type of material so that we can respond to customer demand quickly. I believe that it is a huge strength that other companies cannot have. The strict quality assurance system to fulfill our responsibility for the products also gives us an advantage in overseas business development."

Equipped with the latest multi-tasking machines to handle sophisticated parts with complex shapes

In fact, Shimoda has obtained many international certificates that confirm its sophisticated production technology and strict quality control, including the ASME MO certificate concerning the supply of materials for nuclear power generation in the United States as well as the Achilles JQS in the oil industry in Denmark and Norway. "I am sure that our efforts to obtain the certificates that are challenging to acquire give practical training to our employees," President Shinji Shimoda proudly said.

Increasing sales while seeking a good balance between the businesses related to land, sea, and air

Shimoda's development in accordance with changes of the times has been underpinned by Mazak machines. The M4 turning center, the first Mazak machine for the company, was installed in 1979, around the time when it was shifting the pillar of its business "from sea to land." "When we later purchased four POWER MASTER turning centers, Mazak accepted our request to make a special design full cover because it would be useful for dealing with chips. The quick response after listening to the opinions of users was admirable. I was also impressed with the attitude to make many improvements with taking risks and to develop unique products that are not supplied by other companies. It is always a pleasure to visit Mazak to witness its spirit," said Mr. Tomoya Shimoda, Chairman.

Old and new Mazak machines ranging from the M4 to new QUICK TURNs are working actively

The main production line in the head office plant is currently composed of Mazak machines. Most of the cutting processes is handled by various Mazak machines ranging from very large to small units. Shimoda promotes a new business strategy that adds "air" to "from sea to land." The company plans "increased sales with a focus on nuclear power generation (overseas) in the land-related business, excavation of seabed resources in the sea-related business and aviation and space in the air-related business from 2020," according to Mr. Shinji Shimoda, President. The efforts to expand the company business are also advanced steadily in its commitment to technical innovation and overall strategy, which always respond to changes in the market requirements.

▶ Parts manufactured by making full use of the high-level machining techniques of the company

Customer Report 02

Constantly developing techniques to enter new fields

Japan Honda Seiki Co., Ltd.

Ranging from precision parts with a size of 1 mm (0.04 in.) to machines with a total weight of 60 tons, Honda Seiki Co., Ltd., based in Sendai City, Miyagi, has manufactured various precision machined parts and tooling through integrated production based on a make-to-order system since its start of business. (Seiki – part of the company name, means precision in Japanese)
A major strength of the company is that it can offer a wide range of manufacturing-related techniques including cutting of diverse materials, as well as welding, sheet metal processing, surface treatment, assembly and adjustment, installation, and maintenance.


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01. INTEGREX e-1600V/10S installed in the new eighth plant
02. VARIAXIS i-800, 5-axis machining center operating in the fifth plant
03. High-precision machining with the state-of-the-art multi-tasking machine INTEGREX e-1600V/10S
04. Mr. Noriaki Honda, President (front row, center), and employees

COMPANY PROFILE

Honda Seiki Co., Ltd.

President : Noriaki Honda
Address : 3-35-1 Tsurushiro-machi, Wakabayashi-ku, Sendai City, Miyagi
Number of employees : 30

www.hondaseiki.co.jp

HONDA SEIKI

Japan Honda Seiki Co., Ltd.

The history of Honda Seiki began when the father of Mr. Noriaki Honda, President, established the company in 1961. His father originally belonged to a research institute of Tohoku University and produced special machines to be used mainly within the university. He launched the business in response to the potential he saw for orders from many of his contacts at private companies who had previously been employed at the university. Later, the business was incorporated and the name was changed to Honda Seiki, which has expanded its operations through construction of new plants. The business style of covering steps from machine design to installation and maintenance has been inherited since the days when special machines were produced at the university.


Mr. Honda talking about his future vision

The wide-ranging operations from machining of special parts to production of large machines are performed at the eight plants located within a radius of 1 kilometer (0.62 mi.) of Sendai City. The plants function as different machining sections in accordance with the respectively allocated tasks and installed equipment. Honda Seiki has set up an efficient manufacturing system to meet customer demand effectively based on coordination between the plants.

Wide-ranging technologies supported post-earthquake recovery

The Great East Japan Earthquake in 2011 severely affected the manufacturers based in the Tohoku Region (north of Tokyo). Honda Seiki was also forced to stop its operation due to the intense earthquake on March 11 and its aftershocks. "Many employees rushed back to the company after going to their homes and checking on their families. Their appearance encouraged me to feel that we can still continue our operation. Meanwhile, the first support for recovery was given by Mazak, such as machine inspection and re-leveling. As we were fortunately not damaged by the tsunami, our recovery was relatively quick," said Mr. Honda. In spite of the diligent efforts for recovery, due to the huge impact on business by the earthquake and tsunami, it was 6 months before production level returned to 90% of the level before the earthquake.

"While working for the recovery of our company, we were also committed to support the recovery of our customers. We had originally engaged in machine installations and maintenance in the plants of our customers, so we were able to assist them as if the plants were ours."

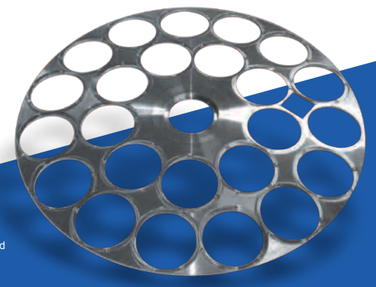

Young employees who will play important roles in the future
Mr. Honda says that he wants them to learn the joy of manufacturing

From production of tools and fixtures for aircraft to production of aerospace components

"When I joined the company, engine lathes and early NC turning centers manufactured by Mazak were already playing active roles," said Mr. Honda, looking back on the long-term relationship with Mazak. Four of the eight plants have installed Mazak machines as the main equipment, including the first plant for turning operations, the fifth plant for medium-sized machining, the seventh plant for large-sized machining and the eighth plant for 5-axis processing. The eighth plant which was completed in February 2016, has the state-of-the-art multi-tasking machine INTEGREX e-1600V/10S and is actively producing tools and fixtures for the aerospace industry.

Mr. Honda giving advice to operators

"The good ease of operation of the MAZATROL and the high productivity of the INTEGREX" are the features of Mazak machines in terms of software and hardware highly valued by Mr. Honda. Honda Seiki has a reputation for the production of tools and fixtures for aerospace components, and plans to raise the ratio of this section in overall sales from 10% at present to 30% in three years. Mr. Honda unveiled his future plan to "further enhance the skills cultivated through the production of tools and fixtures requiring high accuracy and eventually engage in the machining of aerospace parts."
The new eighth plant plays a key role in the company's ambition to expand its business into the aerospace market.


▶ Precision component manufactured by the company

Customer Report **03**

Manufacturer Gets Aggressive with Automated Machining

Canada GN Corporations Inc.

“What should be done to ensure the success in the highly competitive and ever-fluctuating oil and gas industry sectors?” The answer, according to GN Corporations Inc. President and CEO John Pleša, is to make a strategic automation leap driven by GN’s strong forward-thinking attitude of continuous improvement. Automation increases productivity and allows GN to provide a competitive price and a short delivery, which have enhanced their global competitiveness. According to Mr. Pleša, automation provides processing consistency necessary to maintain the initiative which the shop operates under a “zero defects” policy.

01. The Pioneer line doubles GN’s production capacity
02. Part processing of shaft-type workpieces by the INTEGREX e-500H
03. Efficient complex part processing by Mazak multi-tasking machine
04. Mr. John Pleša, President and CEO

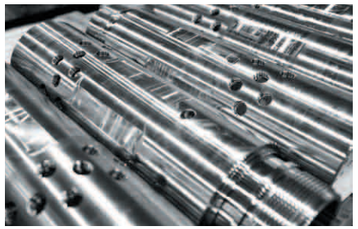
GN Corporations Inc.

President & CEO : John Pleša
Address : 2873 Kingsview Blvd SE, Airdrie, AB, T4A 0E1,Canada
Number of employees : 125

www.gncorporationsinc.com

GN CORPORATIONS INC.
WHEN QUALITY MATTERS

Extremely tight accuracy tolerances are required. “Our goal is to fulfill all the specifications set for each and every one of the parts we produce and to deliver them in the shortest amount of time possible” said Mr. Chamith Rathnayake, Lean Manufacturing Manager at GN Corporations Inc. All the parts GN machines play a critical role while in use, so much so that any part failure can lead to catastrophic outcomes in the field. The shop has been adhering to strict part-processing standards and practices. For every one of its components, GN marks and tracks them from start to finish. Any defects can then be quickly traced back to who manufactured the part, measured it, crated it and even shipped it – all down to the day and time to ensure the error never happens again.



High quality component by adhering to strict part processing standards and practices

“Our relationship with Mazak goes back over 20 years,” said Mr. Pleša, “and they are an integral factor in the success of GN not only as a partner in machine tool technology but also in automation. One of the key features that sold us on the Mazaks is that the machine technology easily integrates with automation.” said Mr. Pleša.

Two cells – each consisting of MAZAK advanced multi-tasking machines

At the heart of GN’s machining operations are about 60 Mazak machine tools. Of these, 14 are new and part of two completely automated machining cells GN refers to as its “Pioneer” and “Frontier” lines. The two cells – each consisting of MAZAK advanced multi-tasking machine technology and stand-alone robots– have helped boost part consistency and increase production output significantly.

Advanced multi-tasking machines boost part consistency and minimize cycle times

Both the Pioneer and Frontier cells improve part setup and cycle times. But what is most critical for the shop is that the cells basically eliminate any necessary human intervention within the process, which greatly diminishes the chance for errors and deviation from one part to the next.

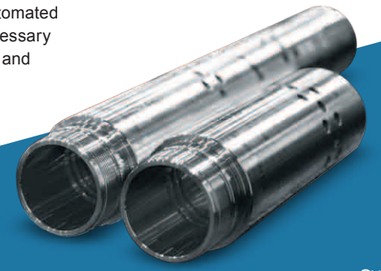
Four Mazak INTEGREX e-500H multi-tasking machines set the foundation for the Pioneer line that typically handles the production of long, shaft-type workpieces. GN gave the Pioneer cell its name mainly because it is a completely new approach to manufacturing oil and gas industry components for which it is used. The cell was also the company’s first pioneering venture into a major automation project. The four Mazaks in the Pioneer cell double GN’s production capability by providing the output of eight of the shop’s other non-automated machines running 24/7. All the necessary machining, gauging/quality control and deburring of parts happens within the Pioneer cell. GN’s fully automated Frontier line consists of 10 Mazak INTEGREX i-200ST multi-tasking machines. Each of the INTEGREX i-200STs has its own robot that loads and unloads parts into the machines. The cell runs 24/7 and, for the most part, is unmanned.

Automation utilizing robots enable unmanned operation

Automation is the next generation of manufacturing

Mr. Juan Roubaud, Plant Manager at GN Corporations Inc. said that the parts have, over the years, become much more complex. Processing them on stand-alone turning centers and milling machines has become inefficient and makes for extremely long turnaround times which is why GN first incorporated multi-tasking machine technology.

Both Mr. Pleša and Mr. Roubaud agree that automation, such as that of the Pioneer and Frontier lines, is the next generation of manufacturing. And for GN, Mazak is and will continue to be a strategic supplier.



▶ High-accuracy shaft-type components produced by GN

Customer Report 04

3D laser machine used to its full potential by cutting large structural material

Germany Elting Geräte- und Apparatebau GmbH & Co.KG

A wide range of precisely cut sheet metal and tubes are essential components for a wide range of industrial products including transportation equipment. Elting Geräte - und Apparatebau GmbH & Co.KG (Elting) is a major German company with many achievements in the field of sheet metal and tube cutting. The strong growth of the company has been supported by the Mazak 3D FABRI GEAR 400 Ⅱ laser processing machine.

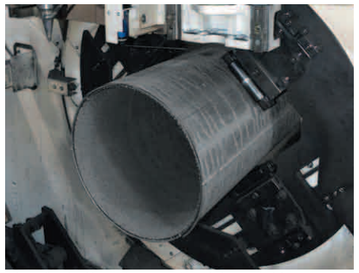
01. Since all operation of the 3D FABRI GEAR 400 Ⅱ is performed from the front, the back of the machine can be installed close to a wall with minimum floor space requirements
02. When cutting square material, the touch sensor measuring system ensures high precision cutting
03. Unloading station automatically removes finished workpieces
04. Mr. Guido Elting, Managing Director

Elting Geräte-
und Apparatebau GmbH & Co.KG

Managing Director : Franz Elting, Guido Elting
Address : Industriestrasse12-14 D-46419 Isselburg Deutschland
Number of employees : 50

www.elting-metalltechnik.de

Based in Isselburg in northwestern Germany, Elting has been in business for more than 75 years. The company was engaged mainly in the cutting of thin sheet metal by 2D laser processing machines, punching machines and bending machines. Its growth gained momentum from a full-scale entry into the field of processing long, large-diameter structural material, in which the company had only limited experience. "It took courage to make the decision to enter the business, but the decision was right," said Mr. Guido Elting, Managing Director.



4-jaw roller chucking system supports workpiece material -even thin walled material can be handled with no problem

When entering this new field, Elting introduced the Mazak 3D FABRI GEAR 300 laser processing machine. This equipment was later replaced by the larger 3D FABRI GEAR 400 Ⅱ. Mr. Elting revealed that the replacement was for "the cutting of parts of a large size that our competitors were not able to handle." In fact, the 3D FG 400 Ⅱ enabled the cutting of material up to a diameter of 406 mm (15.98 in.) and length up to 15 m (49.2 ft.) , which allowed the company to differentiate itself from its competitors.

The business was expanded by making full use of the new machine

"The design of every part of the 3D FG 400 Ⅱ contributes to cutting efficiency," said Mr. Elting who highly evaluates the machine. As demonstrated by this comment, various features of the machine, including the slim cutting torches with minimum interference, high-speed and high- quality cutting with the latest control technology and a space efficient automation system that can handle various shape materials, help the company improve its productivity. These functions realize process integration, which provides the company with many benefits. "The tapping function that can be performed after laser processing in the same workpiece setup makes a great contribution to the reduction of production lead time. Furthermore, thanks to the touch sensor system that measures the external material dimensions to automatically correct distortion, we have received orders from a new customer that had many problems with workpiece accuracy that required additional cutting after they were delivered to his factory." Mr. Elting explained the effects of the introduction of the 3D FABRI GEAR.

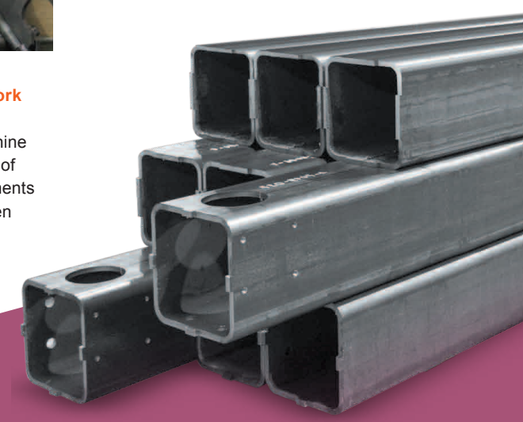
Tapping tools and touch sensor located next to cutting torch

Ease of Operation CNC improves work efficiency

In addition, Mr. Roman Jansen, a machine operator, gives high marks to the ease of operation of the CNC system. "All elements of the CNC system, including the screen layout and the position of buttons, are designed based on ergonomics to ensure user friendliness.
To facilitate programming for the FABRI GEAR, the Mazak FX TUBE software is used in the office for program generation and simulation.

Mr. Roman Jansen, talking about the advantages of the MAZAK FX CNC system

Elting has the management philosophy of "Speed, Flexibility, Quality, Adherence to Delivery time, Fairness and Sustainability." When the purchase of the 3D FG 400 Ⅱ was being considered, Mr. Guido Elting visited Mazak headquarters in Japan to exchange in-depth opinions about the functions to be added and other issues in order to correctly understand the features of the machine and to maximize its performance. At its plant in Isselburg, in which Elting is located, the 3D FG 400 Ⅱ is playing an active role in the achievement of the management philosophy as planned.



▶ Components cut and tapped with high accuracy by the 3D FG 400 Ⅱ

PROFILE » **Mr. Tsutomu Kogoma**

Mr. Kogoma joined Yamazaki Mazak in April 2007, and was assigned to the Accounting Department of Headquarters to handle payment to suppliers, fund management and foreign exchange. Later, he moved to the accounting department of the Minokamo plant.

MAZAK PEOPLE

Mazak Corporation (U.S.A.) Accounting Department

Mr. Tsutomu Kogoma

Aiming for further growth by taking on challenges

Yamazaki Mazak operates many bases in Japan and other countries for various functions such as production, sales and before and after-sales service and support. MAZAK PEOPLE introduces employees who are active in the forefront of the Group companies. This issue features Mr. Tsutomu Kogoma, who works in the accounting department in Mazak Corporation, the US subsidiary of Yamazaki Mazak Corporation. He is a promising young employee with work experience in the accounting departments in Japan and the United States.

—— What is your current job?

I handle financial reporting, preparation of profit/loss forecasts, settlement of accounts and standard cost calculation and analysis of production models for the US plant. I sometimes support jobs of other departments outside my area of responsibility on an as-needed basis.

Checking the status of machines on the factory floor

—— What are the characteristics of the way of working at the US subsidiary?

The characteristics of the US subsidiary are that the structure is more compact and that every action is made promptly because the United States has a culture of taking challenges without fear of failure. In this country, rather than taking time for consideration, it is more desirable to take an action first and make adjustments based on the situation to eventually meet the target. Because I did not get used to such an approach when I was assigned, it took me some time to get used to this new environment.

—— What did you learn from the experience?

I learned the importance of thinking about what to do for myself and acting proactively. It also requires the understanding of other departments. Knowledge on what impact your work would have on your surroundings is essential for making right decisions and taking the right actions. In addition, I am always aware that I should go to other departments actively to collect information and prepare for the future in my own way. As a result, I now have less unexpected circumstances or occasions where I am asked for my opinion suddenly and have trouble replying.

—— What tasks are you expected to work on in the future?

Yamazaki Mazak manufactures and sells a wide variety of machine tools to meet various customer requirements. While it is my job to calculate cost every time a new model is developed or an existing model is improved, I would also like to work together with the technical and production departments to make proposals for cost reduction in the future. While I feel pressure from such a big challenge, I am also motivated to achieve the goal.

Proactively collecting information enhances the quality of work

—— What do you want to learn from your work in the US in the future?

As I said, the US subsidiary has a smaller structure than company headquarters, and each employee therefore covers a wider range of work and handles more diverse tasks. Accordingly, I am required to perform jobs from the perspectives of other departments as well as from the perspective of accounting staff and also broaden my scope to include the US market as well as other markets. In such a working environment, I would like to learn an approach to consider the circumstances of not only my department but also the entire company, or in other words, to what management would do and act quickly. I think that working in the US subsidiary is a great opportunity to do so.

Mr. Kogoma says that even after he returns to Japan, he wants to continuously work in accounting while making use of his experience in the US subsidiary. His attitude to aggressively take challenges without fear of failure, along with his broad view, will greatly help him play more active roles in the company.

How he spends his days off

I go shopping with my family and play with my two-year-old daughter in a park. I drove to Niagara Falls once with my family on vacation. It was good to be able to go for a long drive casually because the highway tolls and gasoline cost are cheaper than in Japan.

News & Topics　Introduction of new products

Fog computing device to achieve a smart factory

Mazak SMART BOX
[MAZAK SMARTBOX™]

The MAZAK SMARTBOX™ is a fog computing device (some data analysis is performed by this unit instead of all analysis being performed in the cloud.) that can transform your plant into a smart factory. It adopts the cutting-edge technology of Cisco Systems Inc., a leading company in the IT industry, to ensure sophisticated cyber security. A unit of MAZAK SMARTBOX™ can be connected with up to six devices which utilize MTConnect®, which is an open communications protocol for the manufacturing industry. Connecting all devices in a plant to the office through a network in a safe manner and collecting and visualizing data of production status and machine operation on a real-time basis, The MAZAK SMARTBOX™ facilitates quick response to any problem as well as the improvement of production.

Features of the MAZAK SMARTBOX™

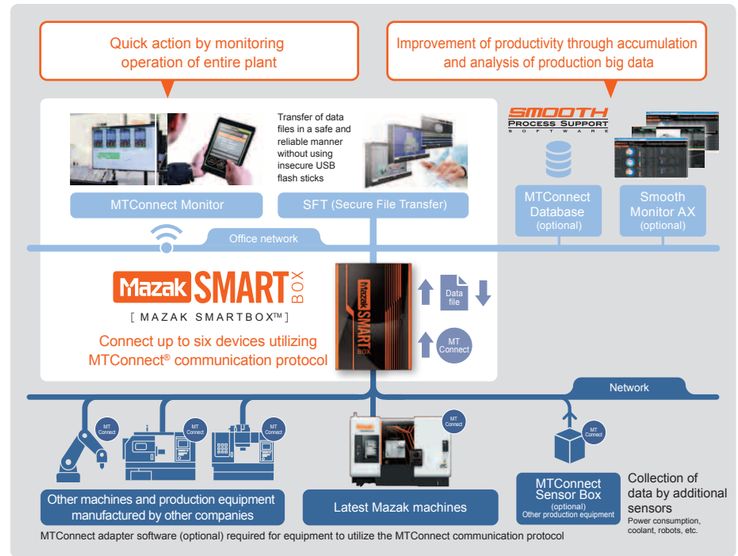
1 Enable machine communications regardless of manufacturer and whether the model is old or new

Any device that uses the MTConnect® communications protocol can perform data communication via the MAZAK SMARTBOX™ regardless of manufacturer and whether the model is old or new.

2 Safe and reliable network connection

Cisco's cutting-edge technology is adopted to ensure sophisticated cyber security. The MAZAK SMARTBOX™ blocks internal and external unauthorized network access to achieve a safe and reliable network connection.

Network construction



THE YAMAZAKI MAZAK MUSEUM OF ART

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.

PASCIN, Jules [1885-1930]
"Woman Seated on a Chair"
1927
Oil on canvas

THE YAMAZAKI MAZAK MUSEUM OF ART
Collection Showcase 1

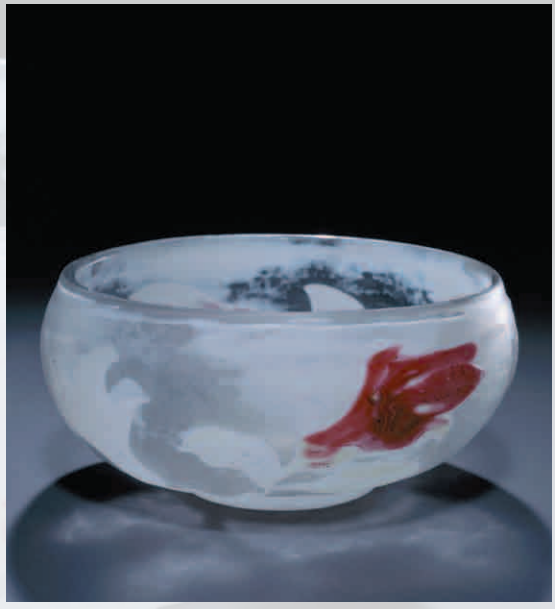
PASCIN, Jules
"Woman Seated on a Chair"

Pascin was born in Vidin, Bulgaria. He lived the life of a wandering bohemian, settled in Paris in 1905, but moved to the United States in 1914 and became an American citizen. He returned to Paris in 1920 and lived in Montmartre. In the cafes there he associated with members of the Ecole de Paris such as Amedeo Modigliani, Moïse Kisling, and Leonard Foujita. Like Toulouse-Lautrec, he immersed himself in a world of cabarets and brothels. Pascin was a portraitist who especially liked to paint women. He showed them with a uniquely melancholy expression or, somewhat humorously, as robust and lively characters. In either case, the gaze he directed toward human beings is filled with deep compassion.
This work is an excellent example of the typical features of Pascin's art. He specialized in quick sketches of the human face and figure. He applied thin colors inside the outlines of the sketch as if rubbing the paint into the canvas. The faint, misty effect reflects his gentleness of character. His grays are melancholy and the browns lively. Here, the grays and browns express tranquil feelings, and the red of the lips conveys the sweetness of this quiet young woman.

THE YAMAZAKI MAZAK MUSEUM OF ART
Collection Showcase 2

GALLÉ, Émile
"Applied and engraved bowl with magnolia design"

Magnolia flowers in low relief are placed upon glass with varying shades of white. The bowl was constructed with a layer of white over transparent glass and additions of yellowish green and red glass before parts of the upper layers were removed by an engraving wheel. Pieces of deep pink glass have been applied to the white background to form the flowers. Different depths of carving result in different shades of color in the flower petals. Some are fully red while others are white with bits of red or plain white. Most of the green glass has been removed from the leaves growing from the branch, leaving a shade of light yellowish green. The area outside the flower reliefs is given the sculptured texture known as "hammering" or martelé. The delicate, misty effect of the color suggests the wet climate of early spring, evoking the freshness of this season when buds are just beginning to open.



GALLÉ, Émile[1846-1904]
"Applied and engraved bowl with magnolia design"
1896-1900

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1-131 Takeda, Oguchi-cho, Niwa-gun, Aichi Prefecture 480-0197 Japan
www.mazak.com