New Year's Greeting



Tomohisa Yamazaki, President of Yamazaki Mazak Corporation

I wish you a Happy New Year.

Last year, the machine tool industry continued to boom as capital investment stayed at a high level in the automotive, semiconductor and various other industries, as was the case in the previous year. Reflecting strong willingness of companies to make capital investments, IMTS held in the United States in September and JIMTOF held in Japan in November both received a record high number of visitors. Statistics released by the Japan Machine Tool Builders' Association also showed that the total amount of orders set a record high for two consecutive vears

In the midst of such a record boom, the delivery of machines takes more time for the whole machine tool industry with demand outstripping supply, which is causing problems to customers. To improve this situation, Yamazaki Mazak started operation of the new Inabe Plant last year. We are also reorganizing the functions in our two plants in Minokamo and converting them into iSMART factories. We will continue to enhance production efficiency to shorten delivery times this year.

On the other hand, this favorable situation, which is recognized as "global synchronous growth," is now changing with increasing uncertainty in the global economy due to trade conflicts between the US and China and other reasons. While the future is unclear, we will respond flexibly to such market changes through the modification of the product mix and shipment destinations and other measures, which can be conducted with our global production system covering Japan, the US, Europe, China and Singapore.

Manufacturing industries are now in a time of transformation. In the automotive industry, it is said that the production process and business model will change significantly with the shift to electric vehicles and ride-sharing services. Other industries are also required to efficiently realize high-mix, low-volume production - in response to the diversification of consumer demands on a global scale. At the same time, manufacturers are facing challenges such as a decrease in the workforce and soaring personnel costs and accordingly increasing their interest in new production technologies and machine tools to solve these challenges.

To address these needs and challenges, Yamazaki Mazak is promoting the development of automation systems suitable for multiple workpieces in variable volume production, 5-axis multi-tasking machines that integrate processes to reduce the production lead time and hybrid multi-tasking machines combined with AM and other technologies. In parallel, we are advancing the development of IoT, AI, Digital Twin and other technologies that allow even unskilled operators to easily make full use of leading-edge automation systems and machine tools. We will also start to offer Mazak iCONNECT, which is an IoT-based comprehensive support, in Japan in April this year. Through this cloud-based connected service for machine tools, we will provide even better service support and solutions than before to help customers improve the productivity of their plants.

Yamazaki Mazak is celebrating its 100th anniversary in business this year. We have reached such a significant milestone thanks to the support of customers and I would like to express my deep appreciation to them. Since our foundation, we have been continuously committed to various new areas as a forerunner in the industry, such as the establishment of overseas production and support systems and the development of MAZATROL, an interactive CNC system, as well as the INTEGREX, which has become synonymous with multi-tasking machines. I believe that those continuous efforts allowed us to grow the Mazak brand worldwide and build a strong trust relationship with customers. We will continue to challenge ourselves and work diligently to prove worthy of the trust of our customers.

As a project to commemorate our 100th anniversary, we are scheduled to open the Yamazaki Mazak Museum of Machine Tools in the autumn of this year. It is regrettable that machine tools are not well known among the general public because they have few opportunities to see them. We hope that the museum helps many people learn about machine tools and become interested in manufacturing to support the growth of the whole manufacturing industry.

As we did in the past 100 years, we will continue to contribute to society and help build a prosperous future with technology.

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

Mazak 100 YEARS OF CONTINUOUS PROGRESS

Yamazaki Mazak's 100 years of history

The history of Yamazaki Mazak, which celebrates its 100th anniversary in business this year, is shown chronologically below:

1919 to 1964



Began the manufacturing of machine tools

The first product sold was a 1200mm CD lathe delivered to Yasui Brother Sewing Machine Co. (Today: Brother Industries, Ltd.) in the 1928. With subsequent increases in orders for machine tools, we started full-scale production of machine tools in 1931.



General-nurnose lathe LB 1500



General-purpose lathe **MAZAK 1500**



Sadakichi Yamazaki Founder of Yamazaki Machinery

Initially manufactured and sold straw mat weaving machinery and later expanded as a woodworking machinery manufacturer.

Temporarily moved the plant to Ishikawa prefecture to escape the impact of the war

Returned the plant Started operation of to Nagoya and restarted operation rebuilding machine



MAZAK brand introduction

Since "YAMAZAKI" is difficult to pronounce for persons outside of .lanan the "YA" and "I" were removed to use "MAZAK" as the brand name. At that time, it was very rare for Japanese companies to take considerations for the global market when deciding a brand name



Teruyuki Yamazaki appointed president

Export of first

machine to the US

Sold machine tools to a US company with more than 30 designing changes, including modification to inch-based standard and hardening of the bed. This experience helped us learn techniques to manufacture world-class machine tools.



01 CYBERWORLD CYBERWORLD 02 variety of production requirements.

First Mazak machining center, BTC. No.5



30 Mill Center

Machine tool equipped with both turning and milling functions. This was the predecessor to today's INTEGREX series - the start of multi-tasking machine tools development.



MAZATROL **FMS**

MULTIPLEX 620

SUPER

TURBO X-48

SYSTEM

First MULTIPLEX turning center - a single machine with the machining capacity equivalent to that of two CNC lathes. This innovative two-turret/two-spindle design drew much attention from manufacturers worldwide.



INTEGREX 200Y

First INTEGREX multi-tasking machine – equipped with a B-axis to provide machining capability comparable to a machining center.

MTC 1000M



MAZATROL T-1

First MAZATROL CNC system Revolutionary CNC that automatically determined required tools and cutting conditions for machining making it possible for inexperienced operators to quickly and easily make programs. The conversational MAZATROL programming method was welcomed by many small factories that had problems due to the shortage of skilled employees.



QUICK TURN 10

First QUICK TURN turning center - designed to provide unsurpassed value thanks to high performance and the advanced MAZATROL T-1 CNC system

> FMS performed unmanned operation during the evening to

considerably improve

program and by mass media companies from

the US and Europe.

Covered in Japanese TV

factory utilization.





First Mazak laser

processing machine

LASER PATH 4040

PALLETECH

MAZATROL FUSION 640

CNC system developed by incorporating the concept of "integration of CNC and PC." This made it possible for machine tools to be easily integrated in a factory network for convenient production management including control of machining programs and tool data.



VARIAXIS 200



3D FABRI GEAR 300



First 3D FABRI GEAR laser processing machine – automatic 5-axis cutting of long pipe and structural material. High accuracy cutting of the complex contours required for tight pipe joints significantly reduced the time required for processing structural material.

Moved company headquarters from Nagoya to Oguchi, Aichi Prefecture

Established US

subsidiary - Yamazaki **Machinery Corporation**

Export of first NC lathe to the US

Started operation of

US manufacturing facility

Built plant in Kentucky and started knockdown production. Following repeated expansions, completed the establishment of an integrated production system covering the whole process from parts machining to assembly in 1983.

Established Belgian subsidiary - Yamazaki Machinery Europe



YMS-30 received the Japan Society of Mechanical Engineers Award



Started FMF operation at the **Oquchi Plant**



Established Progressive Manufacturing Foundation (Today: The MAZAK Foundation)



Started operation of the Minokamo Plant



Changed company name to Yamazaki Mazak

Corporation

Implemented new corporate identity campaign. Changed the company name to

Yamazaki Mazak Corporation from Yamazaki Machinery Works, Ltd. Adopted orange, which represents warmth and passion, as the corporate color. The three lines in the "M" logo represent high quality,





Started operation of Yamazaki Machinery U.K.

During talks between the UK Prime Minister Margaret Thatcher and the Japanese Prime Minister in 1984, Mrs. Thatcher recommended that the advanced Yamazaki Mazak manufacturing facility to be built in the UK.









Queen's Award for Export Achievement in the UK (also awarded in 2007)



Upgraded Oguchi Plant to



Started operation of Little Giant Plant in China

Initially produced CNC turning centers and currently manufactures horizontal machining centers and automation systems. The plant name "Little Giant" is derived from the goal of having a large output produced by a small number of skilled employees.



03 CYBERWORLD





INTEGREX e-1060V

INTEGREX e-H and e-V series – the first large multi-tasking machines. With large cutting capacities and various functions to provide operator support, these machines significantly improved productivity in the machining of complex/large parts.

New focus on machine ergonomics

Launched collaboration with Mr. Ken Okuyama, a world-class industrial designer. This collaboration accelerated comprehensive development that pursued innovations in

2010

INTEGREX

e-670H II



INTEGREX i-300



2011 VARIAXIS i-600

INTEGREX e-1250V/8 II



QUICK TURN NEXUS



VERTICAL CENTER NEXUS

MAZA-CARE maintenance and monitoring service

Using cell phone lines, these maintenance and monitoring services were offered 24 hours a day, 365 days a year. This innovative online service support was a precedent of the current connected services.



MAZATROL MATRIX



OPTIPLEX 3015 Fiber



INTEGREX i-400 AM

VTC-530/20 FSW

These hybrid multi-tasking machines integrate different machining technologies with MAZAK machine tools. The AM series, which integrate additive manufacturing technology, and the FSW series, which integrate friction stir welding technology, were announced at JIMTOF 2014.

MAZATROL SmoothX



CNC system that incorporates a touchscreen for enhanced intuitive programming. Equipped with new hardware and functions to increase machining speed and improve the quality of machined surfaces, as well as an enhanced network connection and other features, this CNC system significantly raised the productivity of machine tools.

Mazak SMARTBOX

The Mazak SMARTBOX ensures cyber security for a safe and reliable network connection of plant equipment. This product assists customers around the world to convert their plants into smart factories.



OPTIPLEX 3015 DDL

INTEGREX e-1250V/8 AG

A hybrid multi-tasking machine equipped with unique functions to machine gears. The whole process of gear processing – gear blank turning, machining and gear machining, is completed on one machine to substantially reduce in-process time while also realizing high-precision machining.

Introduced Mazak iCONNECT

Mazak iCONNECT, which is an IoT-based comprehensive support, was introduced as an advanced and expanded version of connected services.

Now, toward the next 100 years —

Tomohisa Yamazaki appointed president

Established World **Technology** Center



Started operation of Minokamo Plant 2

Started operation of the Yamazaki Mazak Optonics Corporation underground factory

Established World Parts Center







R&D Center



Opened the Yamazaki

Mazak Museum of Art









Converted Oguchi Plant to an iSMART Factory

First Mazak iSMART Factory, which realizes sophisticated digital manufacturing using leading-edge IoT and automation technologies, in the MAZAK Corporation US plant. Completed the conversion of the Oguchi Plant into an iSMART Factory in 2017 and then applied it to production plants across the world. The factory not only demonstrates the effectiveness of state-of-the-art technologies and new manufacturing concepts but also develops various IoT and automation solutions in the form of new products and services.

2018 Started operation of

the Inabe Plant



2019

Scheduled opening of the Yamazaki Mazak Museum of Machine Tools



DONE IN ONE, which means all machining processes performed by one machine, was introduced as a concept that represents the ultimate process integration pursued by Mazak This idea is also reflected in the current development of hybrid multi-tasking machines.



DONE IN ONE

concept introduced

Liaoning Plant in China