

MAKINO REPORT 2023

Makino Milling Machine Co., Ltd.



Quality First

Quality First

Makino pursues “Quality First” in all of its products and services, as well as in its own organization and employees, with a strong belief in mutual trust among everyone involved in building, selling, and using Makino products.

Quality First

All machines are made using machine tools. This is the reason machine tools are called mother machines.

These machines must be high quality and reliable.

Makino will continue realizing sustainable growth as a provider of machine tools and technologies which enhance production efficiency, consistently exceeding customer expectations under our philosophy of Quality First.

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Editorial policy

This report presents business activities and environmental, social and governance (ESG) efforts from a medium- to long-term perspective to aid shareholder, investor, and other stakeholder understanding of how Makino Milling Machine Co., Ltd., contributes to the resolution of social issues and the realization of a sustainable society.

Detailed ESG information is available on the Makino corporate website. We sincerely hope the information presented in this report will assist readers in understanding Makino business activities.

Applicable Period

FY2022: April 1, 2022 to March 31, 2023

Note: Includes some information after April 2023 (FY2023)

Scope

All business activities conducted by Makino Milling Machine Co., Ltd.

Promise of Performance

We measure our success by your success.

Our promise is rooted in relentless craftsmanship. Every day, we strive to get better and resolve to work harder. Doing our unconditional best is more than a goal, it's a responsibility we feel to our customers.

Today, our Promise of Performance drives everything we do for you. Makino is more than our name. It's our word.

Code of Conduct

- 1 Compliance with laws and regulations
- 2 Respect for human rights
- 3 Sensible corporate activities
- 4 Environmental protection
- 5 Internal control

→ https://ir.makino.co.jp/en/company/code_of_conduct/pdf/2022/code_2022.pdf



Referenced guidelines

- International Integrated Reporting Council (IIRC) Framework
- Corporate Governance Code of Japan
- Global Reporting Initiatives' Sustainability Reporting Standards
- Environmental Reporting Guidelines 2018, Japan Ministry of the Environment
- ISO 26000 (International Social Responsibility Standard for Organizations)

Caution regarding forward-looking statements

This report includes plans and strategies based on forward-looking statements. They involve risks, uncertainties, and other factors that may cause actual results and performance to differ materially from those described herein.

Information

Investor information

- **IR information**
→ <https://ir.makino.co.jp/en/>
- **IR library**
→ <https://ir.makino.co.jp/en/library/>
- **Securities report**
→ <https://ir.makino.co.jp/library/securities-report/> (Japanese only)
- **Results briefing materials**
→ <https://ir.makino.co.jp/en/library/explanatory/>

Financial

ESG and sustainability information

- **Sustainability website**
→ <https://ir.makino.co.jp/en/sustainability/>
- **SDG VISION**
→ <https://ir.makino.co.jp/en/sdgs>
- **ESG activities**
→ <https://ir.makino.co.jp/en/esg>
- **Corporate governance**
→ <https://ir.makino.co.jp/library/corporate-governance/> (Japanese only)

Non-financial



Integrated report

→ <https://ir.makino.co.jp/en/library/integrated-report/>

The source of sustainable growth lies in listening sincerely to customers, taking on challenges, thinking carefully, and continuously creating.

Shotaro Miyazaki

President
Makino Milling Machine Co., Ltd.

We strive to accurately identify market trends and address current issues with a sense of urgency.

It is one year since I assumed the position of president and, although it has been a very difficult time due to the pandemic, demand has recovered rapidly as Japan has transited from a post-pandemic to an endemic phase. While the recovery in demand provided a tailwind, a rapid increase in orders in the past year also led to higher order backlogs, resulting in longer delivery times.

In fiscal 2022, ended March 31, 2023, we faced the challenge of clearing the backlog of orders. In addition to making design changes and revising the processes related to bottlenecked products, relevant divisions and suppliers worked together to address product development and manufacturing issues with a sense of urgency. This resulted in a second straight year of sales and income growth, as well as a record-high number of orders.

While delivery times are improving for small and medium-sized machines throughout this fiscal year, those for large machines remain an

issue due to such factors as assembly space limitations. As we continue our efforts to improve delivery times, however, we will ensure that this is not done to the detriment of the high quality and precision that characterize our products.

Despite having achieved record high sales, the operating margin ratio was lower than its most recent peak in fiscal 2018.

The entire supply chain has been affected by soaring raw material, energy, and transportation costs reflecting the sharp depreciation of the yen. Efforts to gradually pass on to prices our cost increases continue, as we take steps to improve internal costs.

In a bid to increase our margin ratio, through service enhancements and cost reductions, we set up the cross-divisional Cost Improvement Office. This has enabled us to implement changes to improve our cost structure, and similar efforts are being made in each division. This move will allow us to focus on creating a system that generates a sustainable income.



Relentless pursuit of high quality and precision

Currently, our global demand is driven by semiconductor manufacturing equipment in Japan, Europe, and the US, as well as electric and electronic parts in China. Orders for EVs are also increasing. In the US and Europe, orders for medical-related products such as artificial bones, and aerospace-related products such as corporate jets, are also strong.

At the same time, however, the global economy is slowing as a result of rapidly rising prices and energy supply concerns stemming from the situation in Ukraine, with customers in various countries becoming more cautious about capital investment. Demand for machine tools is easily affected by economic trends, which are likely to change quickly.

However, many customers have needs in common, such as for labor saving, as well as for manpower reduction, automation, and high quality and precision machining. By meeting these needs, we are able to respond to economic developments and trends, and thus

to establish a product development system that can quickly and flexibly respond to change.

Customers will continue to demand greater precision in machining while, at the same time, demand will grow for improved productivity, including process integration within manufacturing processes.

In response, we will provide high-quality, high-precision machinery and functions, such as five-axis machines that realize enhanced efficiency. Specifically, responding to recent demand for advanced automation at production sites, we launched a new in-house project aimed at upgrading existing automation systems. To meet customer needs in each region and accelerate product development, we are collaborating with overseas subsidiaries to promote global product development.

We will continue responding to customer requests and promptly provide the required machinery, functions, and services which, in turn, will lead to further corporate growth for Makino.

Production system captures domestic and foreign orders

Today, Makino products and functions are used in many areas, including semiconductors, EVs, aircraft, and medical care.

While we provide products, functions, and services that customers currently need, in 20 or 30 years' time we will probably be manufacturing products for different applications. At present, for example, parts for EVs and semiconductor manufacturing equipment are becoming increasingly larger, so there is a growing need for larger machine tools to machine these parts.

We plan to build a new plant near one we already have in Yamanashi Prefecture, and construction is scheduled for completion in 2026. We want this plant to use a completely new production flow, in anticipation of manufacturing products that differ from those we produce now.

It is essential that we have an environment that enables us to provide the products and functions customers require at all times. In Japan, we have been promoting in-house production of sheet metal for several years to further improve quality and shorten delivery times, with some of these products now being mass-produced. We will continue to engage in research aimed at setting up a system that can flexibly respond to fluctuations in demand.

We plan to expand our production system throughout Asia to help meet the needs and resolve the problems of all our customers. To this end, we have been preparing our bases in anticipation of market growth in China and other Asian countries. In fiscal 2022, we commenced operations at our Wuhan, China, plant and plan to expand it. We will also develop our plant in Kunshan, so as to have a production system in China that responds to changes in the environment and meets customer needs.

Growth requires Quality First approach

With Quality First as our corporate philosophy, we provide machine tools required by customers in a wide variety of industries. With the market changing ever faster, it is important not to pursue change but, rather, to support customers in adapting to those changes and to keep up with their demands.

I believe that returning to the basic policy of listening to customer complaints and problems, which has been our policy since the Company's founding in 1937, and helping to resolve immediate customer issues will contribute to our medium- to long-term corporate growth.

We have consistently maintained the importance of first listening to customer issues and opinions, then providing the needed products at customer sites.

Our approach of listening to customers in order to respond to their needs more quickly will remain unchanged. Since the beginning of my tenure as president, I have told our employees they should be scolded more by our customers. That is because the harsh words of our customers reveal their true feelings and concerns.

In order to continue being a partner that our customers can talk to about their problems, we must think outside the box and provide accurate solutions. I believe this is the driving force behind our Company's growth.

Proactive measures to enhance corporate value

Our Challenges

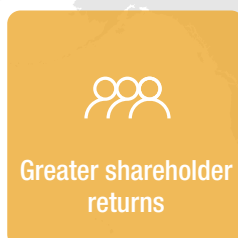


Our Solutions

- Increased productivity
- Proactive investment in rationalization
- Launch of distinctive products



- Shorter lead times
- Improved asset turnover ratio
- Reduction of investment securities



- Stable dividends
- Flexible shareholder returns



- Better governance
- Greater human capital investments
- Response to climate change issues

As I mention above, although we achieved all-time high sales and orders in fiscal 2022, the operating margin ratio and ROE did not reach record highs. In future, we will make every effort to improve profitability and enhance corporate value.

Our initiatives will focus on four issues: improving profitability, increasing asset efficiency, expanding shareholder returns, and enhancing sustainability.

We will take various steps to realize these improvements and make an effort to meet the expectations of all our shareholders. We aim for an operating margin ratio of 12.0%, ROE of 11.0%, and a shareholder return in the range of 35–45% over the next five years.

Makino History

Since our establishment in 1937, Makino has created a number of advanced products and technologies as a specialized manufacturer of machine tools.

In the world of machine tools, where demands for functions and levels change with the times, we must continue to evolve.

Makino has been able to do this by carrying on the pioneering spirit of our founder, Tsunezo Makino. He believed we should never imitate others and should do what no one else is doing. His dedication to Quality First in pursuing the best in each machine we make, was based on the idea that the manufacture of machine tools is an art.

Mindful of these enduring ideas, we will continue to take on the challenge of technological developments through continuous innovation and creativity, always betting on machine tools without hesitation as a specialized manufacturer.

This is in Makino's DNA, and will always be part of our identity.

- 1937** Tsunezo Makino establishes the Manufacturing Division of Makino Shoten, specializing in the manufacture of No. 1-type vertical milling machines.

- 1942** The company name is changed to Makino Vertical Milling Machine Works.



FMS factory at the Atsugi Plant (1983)
Includes 10 machining centers, three automated guided vehicles, an automated warehouse, and tool stations.

- 1961** The company name is changed to Makino Milling Machine Co., Ltd.
- 1964** Makino is listed on the Second Section of the Tokyo Stock Exchange.
- 1967** Atsugi Plant (Kanagawa Prefecture) is completed and begins operation.
- 1971** Makino is listed on the First Section of the Tokyo Stock Exchange (currently the Prime Market of the Tokyo Stock Exchange).
- 1975** Establishes Makino U.S.A. INC.
- 1977** Establishes Makino Technical Service Co., Ltd.
- 1978** Acquires an equity interest in Heidenreich & Harbeck Werkzeugmaschinenfabrik GmbH (currently MAKINO Europe GmbH) in Germany.
- 1981** Purchases LeBlond Machine Tool Company in the U.S., changes the name to LeBlond Makino Machine Tool Company (currently MAKINO INC.).
- 1983** Adds flexible manufacturing system factory to Atsugi Plant and starts operation.



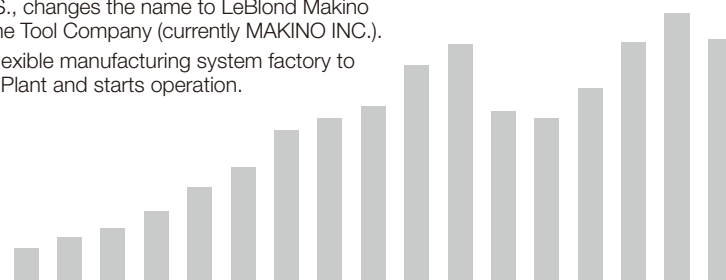
Atsugi Plant



Fuji Katsuyama Plant

Net sales

■ Consolidated domestic sales ■ Consolidated overseas sales
■ Non-consolidated sales

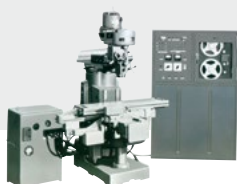


1937 1950 1960 1970 1980 1990

- 1952** Develops the vertical milling machine, G.
- 1958** Develops the K-Series of vertical milling machines.
Develops Japan's first NC milling machine, KNC.
- 1966** Develops Japan's first machining center, MCP-70.

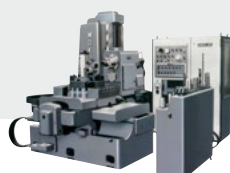
- 1972** Develops a transfer line (FMS) consisting of adaptive control machining centers.
- 1975** Develops the Hi-PROGRAM I and II automatic programming system.
- 1976** Develops the FNC Series of NC vertical milling machines and the FNC-A Series of vertical machining centers.
- 1979** Develops the EC3025 NC wire EDM.

- 1980** Develops the EDNC22 NC sinker EDM.
- 1982** Develops the DMS Commercial Automatic Die and Mold Machining System.
- 1986** Develops the automatic system module MMC (Makino Machining Complex).
- 1987** Develops the RMC55 NC vertical milling machine (LeBlond Makino) in Asia.
- 1989** Develops the A55 horizontal machining center.
Develops control devices Professional 1 and 2.



1958

Japan's first NC milling machine, KNC



1966

Japan's first machining center, MCP-70



1980

NC sinker EDM, EDNC22



1989

Horizontal machining center, A55



1999

Vertical machining center, V33



Makino Inc.
(U.S.A.)



Makino Europe GmbH
(Germany)



Makino Asia Pte Ltd
(Singapore)



Makino India Pvt. Ltd.
(India)



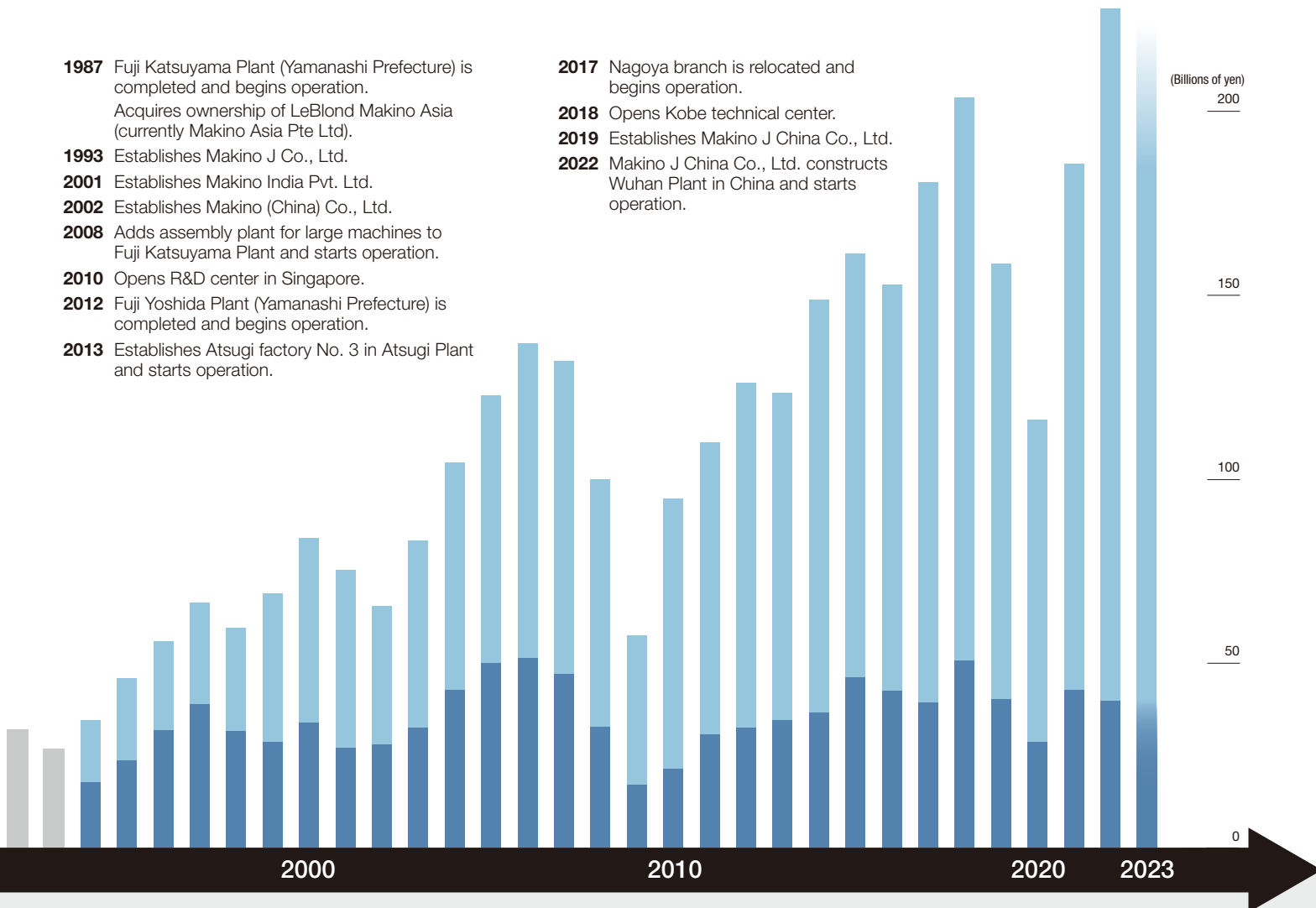
Makino China Co., Ltd.
(Kunshan, China)



Makino J China Co., Ltd.
(Wuhan, China)

- 1987** Fuji Katsuyama Plant (Yamanashi Prefecture) is completed and begins operation.
Acquires ownership of LeBlond Makino Asia (currently Makino Asia Pte Ltd).
- 1993** Establishes Makino J Co., Ltd.
- 2001** Establishes Makino India Pvt. Ltd.
- 2002** Establishes Makino (China) Co., Ltd.
- 2008** Adds assembly plant for large machines to Fuji Katsuyama Plant and starts operation.
- 2010** Opens R&D center in Singapore.
- 2012** Fuji Yoshida Plant (Yamanashi Prefecture) is completed and begins operation.
- 2013** Establishes Atsugi factory No. 3 in Atsugi Plant and starts operation.

- 2017** Nagoya branch is relocated and begins operation.
- 2018** Opens Kobe technical center.
- 2019** Establishes Makino J China Co., Ltd.
- 2022** Makino J China Co., Ltd. constructs Wuhan Plant in China and starts operation.



- 1990** Develops the FX650 vertical machining center (LeBlond Makino) in Asia.
Develops the Mold eye H series 3D CAM system.
- 1991** Develops the GI Control and Super GI Control technologies.
- 1994** Develops the J55 horizontal machining center.
- 1999** Develops the V33 vertical machining center.
- 2000** Develops the MAG series of horizontal machining centers for aerospace components.

- 2001** Develops the a51 horizontal machining center.
Develops the SP43 and SP64 wire EDMs in Asia.
- 2006** Develops the iGRINDER G5.
- 2008** Develops the D500 5-axis vertical machining center.
- 2009** Develops the iQ300 precision micromachining center.
Develops the T4 5-axis machining center.
Develops the F3, F5, PS65, and PS95 vertical machining centers in Asia.

- 2010** Develops the EDAF2 and EDAF3 sinker EDMs in Asia.
- 2013** Develops the D800Z 5-axis vertical machining center.
- 2017** Develops the V80S 5-axis vertical machining center.
Develops the iAssist manufacturing support mobile robots.
- 2018** Develops the BX3 EDM hole drilling machines.
- 2020** Develops the LB300/LB500 laser machine.
- 2021** Develops the JA6 horizontal machining center in Asia.
- 2022** Develops the a900Z 5-axis horizontal machining center.
- 2023** Develops the DA500 5-axis vertical machining center.



2000
5-axis horizontal machining center,
MAG series



2009
Vertical machining center,
F5



2017
5-axis vertical machining center,
V80S



2020
Laser machine,
LB300



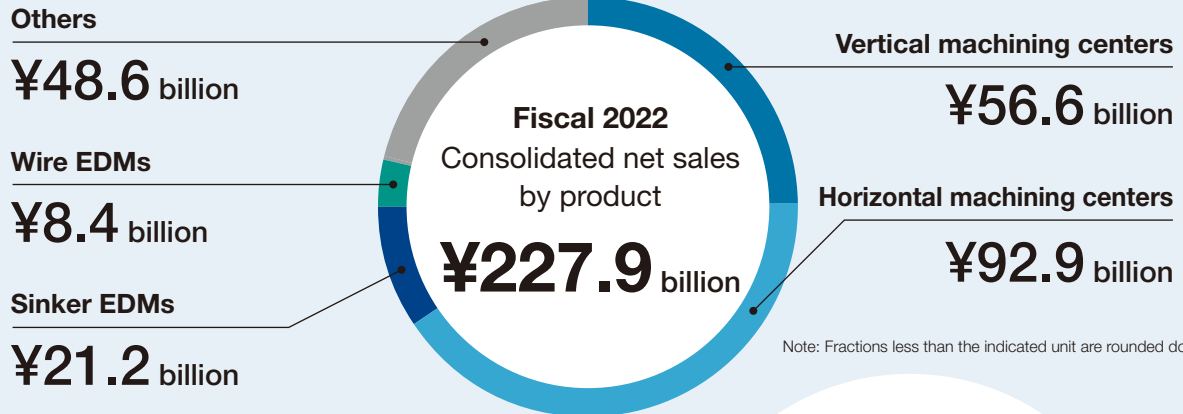
2022
5-axis horizontal machining center,
a900Z

Makino Business Model

Main products

In addition to vertical, horizontal, and 5-axis machining centers, Makino develops, manufactures, and sells machine tools* that include electrical discharge machines (EDMs), laser machines, and milling machines.

* Machines used to process workpieces by cutting or drilling holes.



Machining Centers

Machining centers are machine tools that can automatically select and change tools to perform multiple machining operations, such as drilling and facing, using a single machine.

Vertical machining centers have spindles for mounting and rotating tools vertically, and horizontal machining centers have spindles for doing so horizontally.



Vertical machining center

Mainly used to process dies and molds.



Horizontal machining center

Widely used in the processing of parts used in the automobile, aircraft, construction machinery, energy-related, semiconductor manufacturing equipment, and other industries.



Sinker EDM

Mainly used in the processing of plastic and die-cast molds for automobiles, IT products, electrical parts, and other items.



Wire EDM

Mainly used in the processing of precision press molds for automobiles, IT products, electrical products, and semiconductors, as well as in the processing of precision parts for medical equipment.

Electrical Discharge Machines (EDMs)

EDMs use electrical discharge for processing. They comprise of Sinker EDMs and Wire EDMs.



Milling Machines

Milling machines process flat surfaces, holes, and grooves using rotating tools.

There are two types: manual operated milling machines and NC milling machine equipped with NC devices to enable automatic operation.

Global expansion

Makino has proactively expanded business globally since the 1970s.

To maximize the utilization of Makino machines, we have established local business offices.

Others

¥1.7 billion

Europe

¥18.7 billion

Americas

¥64.0 billion

Fiscal 2022
Consolidated net sales
by region

¥227.9 billion

Japan

¥39.8 billion

Asia

¥103.6 billion

Note: Fractions less than the indicated unit have been rounded down.

¥18.7 billion

¥103.6 billion

¥39.8 billion

¥64.0 billion

Europe

Makino Europe GmbH

Asia

Makino Asia Pte Ltd

Japan

Makino Milling Machine Co., Ltd.

United States

Makino Inc.

European expansion

1978 Acquires an equity interest in Heidenreich & Harbeck Werkzeugmaschinenfabrik GmbH (currently Makino Europe GmbH) in Germany



Base expansion

Main European bases

- Germany
- Italy
- France
- Spain
- Slovakia

Southeast Asia, India, and China expansion

1981 LeBlond Makino Asia (indirectly owned subsidiary)

1987 LeBlond Makino Asia becomes a directly owned subsidiary (currently Makino Asia Pte Ltd)

2001 Establishes Makino India Pvt. Ltd. (Makino Asia Pte Ltd subsidiary)

2002 Establishes Makino (China) Co., Ltd. (Makino Asia Pte Ltd subsidiary/Kunshan)

2019 Establishes Makino J China Co., Ltd. (Makino Asia Pte Ltd subsidiary/Wuhan)



Wuhan Plant

1937 Establishes company

1967 Operation commences at Atsugi Plant



Atsugi Plant

1987 Operation commences at Fuji Katsuyama Plant



Fuji Katsuyama Plant

2008 Expands Fuji Katsuyama Plant

2012 Operation commences at Fuji Yoshida Plant

2013 Operation commences at spindle head factory

2015 Fuji Yoshida Plant expanded

United States expansion

1975 Establishes US corporation

1981 Acquires LeBlond Machine Tool Company (currently Makino Inc.)



Base expansion

Main bases in the Americas

- United States
- Canada
- Mexico

Makino Value Creation

We provide machine tools, peripheral equipment, and software, as well as engineering services utilizing these tools to facilitate automation. All these products are customized to meet the needs of the automobile, aircraft, medical care, and other industries.

Through these efforts, we provide customers with the latest know-how to maximize use of their machines and help resolve issues in each industry.

Main Makino products and customer products created using Makino products

Semi-conductor

Semiconductor manufacturing equipment

Semiconductors are used in products that are indispensable to our daily lives, such as mobile phones, home appliances, and automobiles. Semiconductor production requires vacuum environments, and the shape of machine parts used in the manufacturing process must be extremely precise. Makino contributes to global semiconductor production through the provision of machines meeting the demands of high precision.

Automobiles

Motors are the heart of EVs, PHEVs, and FCVs. Motor cases that protect motors must have high cooling performance and be lightweight, to meet the increasingly stringent quality requirements. Makino machining centers facilitate the long-term production of consistently high-quality motor cases.

Makino's ma

perso
compu

Smartphones

Robots

Semiconductors
manufacturing
equipment

Automobiles

Home
appliances

Construction
machinery

Agricultural
machinery

Conveyance systems

Milling machines

Laser
machines

EDM hole drilling
machines

Wire EDMs

Mak
techno

Automobile

Airplane



Aircraft

Aircraft are indispensable for long-distance travel. In the manufacture of aircraft parts, large quantities of light and strong aluminum alloy are machined into complex shapes in order to achieve both light weight and high strength. Our MAG series, which processes aluminum alloy at high speeds with high precision, has become the standard for machining aircraft parts.

Medical equipment

Titanium is one of the materials used for artificial joints. Although titanium is a lightweight, strong, and body-friendly metal compatible with living organisms, it is also difficult to machine, as it causes severe tool wear during processing. Makino meets customer needs with machines that provide excellent rigidity suitable for machining difficult-to-cut materials.

Medical Care

Makino Value Creation Process

The Makino R&D, Production, Sales and Service Divisions provide products and services supporting customer efforts to overcome challenges including developing entirely new products and enhancing production efficiency.

Identifying and solving customer issues drives industry advances and contributes to society, which leads to the enhancement of Makino's corporate value.

Corporate philosophy

Quality First

Social issues

Activity themes

Input

Business activities



MAKINO's SDGs VISION

for My Home Planet

1 Bonds between people

What we can do to build better relationships between people

2 Makino's manufacturing

What we can do to create sustainable machine tools

3 Connection with customers

What we can do for our customers' manufacturing

MAKINO Production System



Intellectual capital → P. 15

- Technological capabilities cultivated by assisting with the resolution of customer issues



Social capital → P. 17

- Long-term relationships of trust with stakeholders



Manufactured capital → P. 19

- Master craftsman technologies that achieve high precision
- Global production bases



Financial capital → P. 21

- Cash-generating capabilities facilitating planned capital investment



Natural capital → P. 25

- Use of renewable energy
- Development of products with superior environmental performance



Human capital → P. 27

- Diversity of human resources



Applications



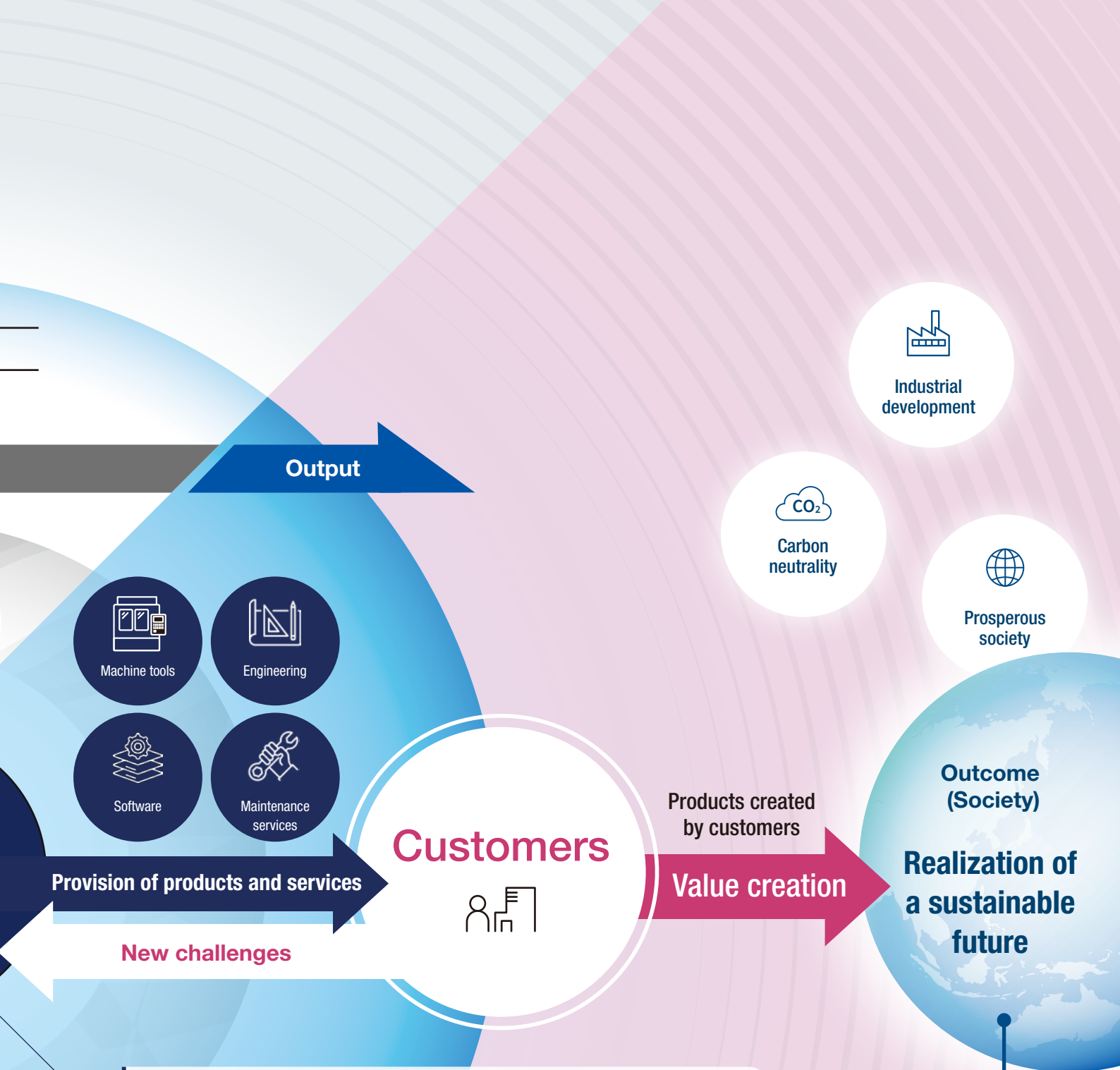
R&D and production

MAKINO



Sales and services

Corporate value enhan



Fiscal 2022 results (consolidated)			
Net sales		Operating margin ratio	7.7 %
	Japan	ROE	8.6 %
	Overseas	Dividend payout ratio	22.3 %
	¥227.9 billion		
	¥39.8 billion		
	¥188.1 billion		
Scope 1 & 2 targets (consolidated)		CO ₂ emissions	2030 42 % reduction (from fiscal 2022)

cement



Makino Core Competencies



Intellectual
Capital

Makino's strength lies in technological development capabilities that incorporate the latest trends and exceed customer expectations.



Pursuing products and services that exceed customer expectations

Makino products, which are used in automotive, semiconductor, medical care, aerospace, and a variety of other industrial fields, have taken shape and evolved through the process of listening to customer needs, then developing and improving machinery that meets those needs. In addition to sales staff, product development staff often visit customers to ascertain their issues and requests. This approach enables us to accurately grasp customer needs and provide them with the products and services they require.

Proposing and providing products and services that exceed customer expectations is both what identifies us and our strength. Products and technologies born from issues and needs lead to the creation of new models and services. The voices of each customer are the source of our technological innovation.

Our product and development policy can be summed up as being high speed and high precision, on which characteristics our founder, Tsunezo Makino, placed great importance. This is the core concept that guides us in the creation and improvement of machines, and which is instilled in every employee.

Providing customers with products and services based on perceived social issues

Although customers face a wide variety of issues, common needs at present include labor saving and automation. In Japan, there is worker shortage, mainly due to the declining birthrate and shift away from manufacturing. The pandemic also restricted the movement of people overseas, causing labor shortages at manufacturing sites in many countries and regions. In light of these social issues, there is a growing need for automation that can realize productivity improvements.

Makino provides both high-speed, high-precision processing machines, as well as one-stop automation equipment and operating software to save labor and facilitate automation in the transportation of workpieces (parts being processed) and other operations.

There is also growing interest in carbon neutrality. The eSTABILIZER technology developed by Makino automatically controls machines according to changes in factory environments, and has developed a strong reputation for its ability to reduce power consumption for air conditioning while maintaining high-accuracy machining. Further, as reducing the time required to machine parts will also lead to higher production efficiency and reductions in CO₂ emissions per part, we will continue our efforts to increase the speed and precision of our machines.

Digital Transformation (DX) in all manufacturing activities

We are also proactively engaged in DX. At present, we are moving forward with preparations for the introduction of Product Lifecycle Management (PLM), which we aim to begin implementing in December 2024. By introducing this, we will share and visualize a variety of data related to product research, as well as sales, production, after-sales service, and all other business activities in Japan and abroad, in order to achieve DX in all manufacturing activities.

By promoting DX in manufacturing, we will provide value that exceeds customer expectations by reducing costs, shortening lead times, and providing prompt after-sales service.

Resolving customer issues enhances Makino's product development capabilities

In our growth as a machine tool manufacturer, it has been important to always listen to customer needs. We rarely have a clear-cut solution to customer problems at the beginning, and instead have to slowly discover information and problems through trial and error. This has enabled Makino to provide products that satisfy customers.

Engaging in trial and error with customers leads to new products, technologies, and solutions, and we believe that cultivating human resources who can resolutely confront this process is key to enhancing our development capabilities. We will continue to emphasize the product development of human resources who can grow together with our customers.



Haruyuki Shiraishi

Director, Executive Manager of R&D Division

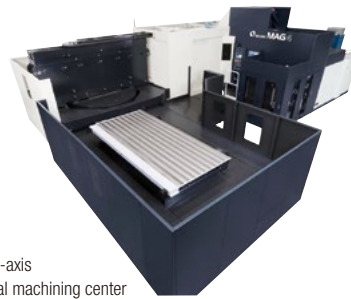
Product
development

Contributing to customers and society through product development

Amid serious labor shortages in the manufacturing industry, there is a growing need for labor saving and automation at manufacturing sites. Makino facilitates automation of the entire manufacturing process.

In providing one-stop automation, we ascertain overall production line conditions. This leads to the development and proposal of functions tailored to conditions at each customer worksite. We have faced issues with customers in various fields, and incorporate knowledge gained from these experiences in product development.

Product lineup to meet the need for larger size, higher speed, and greater precision

T1 5-axis horizontal
machining centerMAG4 5-axis
horizontal machining centerD2 5-axis vertical
machining center

There is a trend to using larger parts in new energy vehicles. By changing the process from machining multiple parts and assembling them into a single unit, to machining them as a single part, man-hours can be drastically reduced and products can be made lighter.

With each individual part being larger, the machines are larger, thus requiring higher precision than before.

We have experience in addressing similar issues in aircraft. We will contribute to society by resolving the conflicting themes of larger sizes, higher speeds, and higher precision in machining with highly reliable products leveraging technological capabilities cultivated in the field of aircraft.

Software

Global development of MAS-NX automation support software

Automation in manufacturing has evolved alongside software. Makino has provided many automation systems since the early 1980s.

Our new MAS-NX software currently under development is equipped with Makino's proprietary Proactive Scheduling production scheduling function, based on overall operational simulations that include operators as well as machines.

The function facilitates the advanced prediction of risks such as tool shortages and tool life that may occur during the execution phase of production planning, enabling countermeasures to be taken. It includes Insight, a function that supports further customer improvements using the latest digital

technologies to analyze machine operating conditions and operator behavior.

We are making advances in software development methods, while shortening development lead times by maximizing the use of overseas subsidiary development resources, with Japan taking the lead. In addition to providing attractive functions, the system incorporates a design that can be easily customized by overseas subsidiaries to meet country-specific needs.

Makino will continue meeting demand for labor saving and automation with software leveraging advanced technologies to support improved productivity.

Topics

New technology OPTIMIZER born from customer problems

In 2023, we commercialized OPTIMIZER, a technology that automatically optimizes machining accuracy in response to changes in external temperature.

The proprietary technology was developed after a customer, who demanded high-precision machining, complained that the accuracy of the machine was unstable.

The instability was caused by temperature fluctuations in the factory where the machine operated. Air conditioning systems that stabilize machine temperatures are also important for maintaining high machining accuracy, and in the past, we have recommended that customers upgrade their factory air conditioning equipment to a system that can be precisely controlled.

However, cooling the factory by using air conditioning was not necessarily the correct answer, and we thought that machining accuracy should be optimized by the machine itself.

In conjunction with related departments and the customer, we carried out repeated measurements and verifications aimed at developing functions that would facilitate optimal machining accuracy even in this customer's environment. As a result, we were able to achieve a level of accuracy that satisfied the customer without the need to upgrade their air conditioning system. This effort led to the commercialization of the OPTIMIZER.

Sincere efforts to address as our issue what previously had been considered a customer issue, has led to new innovations for Makino.

OPTIMIZER



OPTIMIZER function

We added this function, which acquires and analyzes data on the relationship between temperature changes and displacement in customer usage environments, and automatically calibrates optimal parameters to maintain higher machining accuracy, to our eSTABILIZER technology, which predicts and corrects temperature-related machine deformation by comparing data on assumed machine deformation and data on measured temperatures inside the customer's machine.



Makino Core Competencies



Social and
Relationship
Capital

Market trends and customer relationships



Accurately grasping global trends

Although the market began moving rapidly once the pandemic had started to ease, it gradually slowed down during the second half of fiscal 2022. However, we remain optimistic, and in fiscal 2023 (April 1, 2023 -March 31, 2024.) vigorous movements behind the scenes are leading to orders.

In China, there is ongoing demand for capital investment in some areas, including those related to new-energy vehicles. Thus the Company will expand its business there by investing further in its facilities in Kunshan and Wuhan.

Makino regards not only China, but also India and other Asian countries as important markets, where it plans to expand business to meet growing demand.

Aircraft markets are recovering in Europe and the US, and growing in India. Airframe and engine part demand is increasing among major aircraft companies, and for corporate jets in particular.

In Japan, due in part to government policies, we expect semiconductor production equipment to become one of the pillars of our business. As market trends differ by country, region, and industrial area, it will become increasingly important that we accurately grasp trends in order to steadily promote sales focused on the next step.

Leveraging our capabilities to boost customer trust

Our sales strength lies in the fact that machining technology, after-sales service, and sales staff have worked closely together to serve customers since the Company's founding. As the machines delivered to customers are used for several decades, sales staff must maintain relationships of trust with customers.

Although the needs of customers change with the times, Makino has become what it is today by supporting customers as a team, while addressing the issues and requirements of the day.

Customer needs vary widely, from preventing machine breakdowns, to reducing processing time and environmental impacts. For this reason, understanding our machines, as well as customer products and their entire production process, are essential to meeting customer needs. Team effort allows us to provide customers with a sense of our value as we continue strengthening our efforts to create win-win relationships.

Advancing physical and digital sales

Makino's business begins with listening to customer issues. Face-to-face communication is crucial to ascertaining what is needed and strengthening relationships of trust.

However, during the more than three years of the COVID-19 pandemic, we were often unable to engage in our preferred style of in-person sales. But we are now finally able to visit customers again, and they are able to go to our plants.

Our products are not inexpensive, so when customers choose them, they do so for specific reasons. These include high speeds, great precision, and advanced functions. But ultimately, it comes down to the trust customers have in our sales staff and Company. To continue building trust, we are now once again proactively engaged in physical sales activities.

At the same time, digital transformation, or DX, in sales activities has advanced, due to our pandemic-related inability to conduct face-to-face sales. We now hold online seminars on a variety of topics, including product features and system programs, and are using digital technologies to develop new customers and establish customer contact points.

While exhibitions were cancelled because of the pandemic, we thought that if customers could not come to an exhibition, we would take the exhibition to them. So we organized the D2 machining sample caravan. This resembled an exhibition, in which items can be seen, comments heard, and samples held. Samples were machined using the 5-axis vertical machining center D2—a new product at the time—loaded onto a stage truck, and taken to customer factories for exhibition.

As a result, engineers working in the field provided us with valuable comments that are usually hard to come by at regular exhibitions. And the real time feedback lead to product orders. We have thus decided to continue building trust through hybrid efforts combining physical and digital activities.

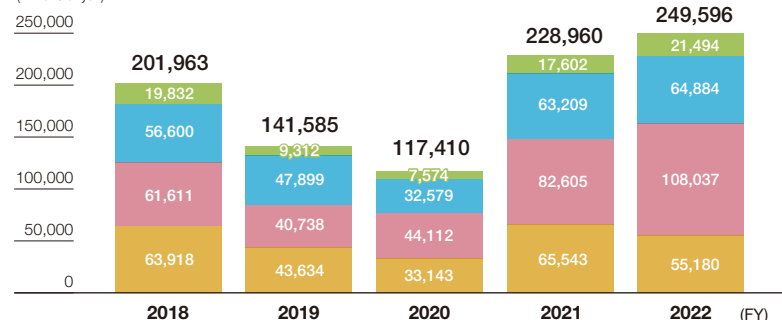


Yukihisa Takayama

Executive Officer
Executive Manager of Sales Division

Orders received

(Millions of yen)



Note: Inter-segment transactions are offset and eliminated.

Topics

D2 machining sample caravan

The D2 machining sample caravan is a sales measure in which we load machining samples made using our 5-axis vertical machining center on a stage truck for first-hand inspection at customer factories.

A member of Customer Application Center accompanies the caravan to provide expert explanations on products and machining technologies.



Field service engineer support

Putting ourselves in the customer's place to quickly solve their problems



Tatsuji Omatsu

Director,
Executive Manager of Customer Support Division,
Makino Technical Service



Koji Kimura

Director,
Deputy Manager of Customer Support Division,
Makino Technical Service

Customer product inquiries are collected and handled at three IoT Centers located across Japan. Most of the inquiries are resolved over the phone, but when this is not possible, engineers are dispatched to the site to provide the needed technical support.

Makino staff also support overseas customers in three shifts. Engineers livestream site conditions, and IoT center staff provide diagnoses and support in real time. The system enables us to respond quickly to any customer problem.

We have also introduced a new mentoring system designed to pass on veteran personnel skills to future generations. In addition to knowledge and skills related to machinery and equipment, we also emphasize the importance of being customer-focused.

Shift in maintenance from repairs to prevention

In fiscal 2022, we started to provide the Makino Machine Care Package, a service that provides customized inspections of machinery for each customer. As our products are used in various fields, the parts that are prone to fail vary, depending on how machines are used. Thus, maintenance and parts

replacement depend on how customers use the machinery and past data, and are conducted systematically.

Regular inspections can prevent sudden, unexpected failures. Rather than carry out repairs when machines break down, we provide a service that prevents problems from occurring. Customers who have made use of this service report that having fewer problems has resulted in stable machine operation. This has allowed our customers and Makino to reduce the amount of unplanned overtime and holiday work required when problems occur, which, I believe, has created a win-win relationship.

Support system assists in disaster recovery

To respond to earthquakes, floods, and other natural disasters, which can occur at any time, Makino has introduced a disaster monitoring system that registers information on the location of products delivered to customers. When our products are in operation in areas affected by a disaster, we confirm whether customers have been impacted, and can soon have a support system in place to quickly assist with the resumption of production.

Declaration of Partnership Building

Makino has registered its Declaration of Partnership Building, a framework that requires companies to state their business policies from the standpoint of the person who places an order. The declaration focuses on the excerpted items given in the box on the right.

We will build new partnerships by promoting collaboration and coexistence with supply chain partners and businesses that are looking to create value.

1 Coexistence and co-prosperity of the entire supply chain and new cooperation that transcends business scale and affiliation.

2 Compliance with the Promotion Standard.

- (1) Pricing method
- (2) Mold management and other cost burdens
- (3) Terms of payment by draft, etc.
- (4) Intellectual property and know-how
- (5) Consideration for work-style reforms at subcontractors



Makino Milling Machines Declaration of Partnership Building full text: → <https://www.biz-partnership.jp/declaration/25844-05-18-kanagawa.pdf>



Makino Core Competencies



Manufactured
Capital

Manufacturing efficiency based on dispersed production



Creating a system quickly responsive to market needs

Makino has always used systems that enable us to meet customers' desired delivery times. Our products span a wide range of models and options and, because demand fluctuates substantially, our basic policy is to manufacture products varying in type and quantity on a build-to-order basis.

So as to meet requested product delivery dates, we make prospective arrangements based on production plans, and are prepared to begin assembly as soon as an order is received. Since order volume is greatly affected by market trends, our production system must be able to flexibly respond to market changes if we are to meet customer needs consistently.

For externally procured goods, it is important that we share information with suppliers, to strengthen the supply chain and build cooperative relationships.

Makino has improved production efficiency and responded to increasing demand by revising the production process through process dispersion. This is carried out in our assembly line, where it is difficult to compensate for manhour excesses or shortages driven by market trends in process-intensive workplaces.

To this end, we analyze the work skills required in each process and divide them into work that requires special skills and work that does not. In this way we ensure that we have the workers necessary for production.

We are also making efforts to reduce the scope of work requiring special skills. For example, in work that requires advanced precision-adjustment skills, we are cutting back the adjustments required by consistently improving machining accuracy in earlier processes.

Sometimes, we develop dedicated machines to attain higher machining accuracy. In order to meet customer expectations, we are constantly seeking ways to adjust work processes to improve productivity.

Maximizing production efficiency

At present, we are trying to expand production volumes by expanding sub-assemblies and unit assemblies of all models, based on a dispersed-process modular production system.

To be able to respond to the rapid increase in orders, we have thoroughly subdivided work processes into simple work units, and improved work manuals and quality checklists. This has allowed us to expand the scope of assemblies that can be performed by non-veteran workers and to develop a system facilitating flexible staffing.

Moreover, in order to further enhance our ability to respond to future hikes in production volumes due to market changes, we are drawing on our accumulated experience to develop a system that enables us to outsource sub-assembly and unit assembly work for subcontractors who only process and manufacture individual parts.

When it comes to in-house assembly, we plan to enhance production planning by better visualizing employee work plans, performance, and skills. At the same time, we aim to increase assembly efficiency by providing systematic training and creating an environment that encourages improvement and skill enhancement.

Besides more efficient assembly, it is important to improve logistics to enhance productivity. The modular production system we use to handle unexpectedly high production volumes has resulted in more efficient assemblies.

However, the greater movement of sub-assemblies and units among processes has affected logistics; existing plants are no longer able to utilize spaces and traffic flow as envisioned when the plants were designed. As a result, a substantial amount of manpower is required for general operations. This has created a challenge in terms of efficiency if parts, sub-assemblies, and units necessary are to be delivered to the main assembly site in a timely manner.

For new domestic and overseas plants in which we plan to incorporate dispersed-process production systems, we are considering layouts that maximize productivity by adjusting the production balance among processes, while promoting automated logistics among processes to achieve efficiency in logistics and main unit assemblies.

The new plant planned for Yamanashi Prefecture will have new sheet metal and powder coating shops, and realize seamless and efficient logistics among processes. This will be achieved by optimally arranging, according to process flows, the parts warehouse, as well as the paint, sub-assembly, and final assembly shops. On completion, the plant will dramatically increase our capacity to produce large machines, for which demand is growing.

However, rather than being exclusively focused on large machines, the plant will be multi-purpose based on different utilization and needs. It will be able to flexibly accommodate the manufacture of small and medium-sized machines, to reflect changing market trends and customer needs. The plant will be a next-generation model for domestic and overseas manufacturing bases.

In order to optimize production processes, including supply chains, it is necessary to build and maintain an information processing system that centrally manages essential information and facilitates prompt decision-making. We are now working on the creation of a system that can integrate and analyze various types of information to improve operational efficiency and further enhance our ability to respond to diversifying customer needs.

Tatsuaki Aiba

Executive Vice President, Director
Executive Manager of Production Division



Manufacturing sites and main products



Efforts to increase productivity

Dedicated machine development

To manufacture high-precision machines, the surfaces where key components meet must be machined into extremely flat planes. But there are limits to the accuracy that machine processing can achieve. For this reason, the contact surfaces are finished by hand using highly skilled workers. The process requires the skills of a master craftsman and can only be performed by veteran workers. This means that the number of skilled workers available to carry out finishing has an impact on overall productivity.

Makino has developed dedicated machines in-house for parts processing that can achieve the high-precision surfaces required to manufacture our machines. This has helped boost productivity by minimizing the need for the work to be done by hand.



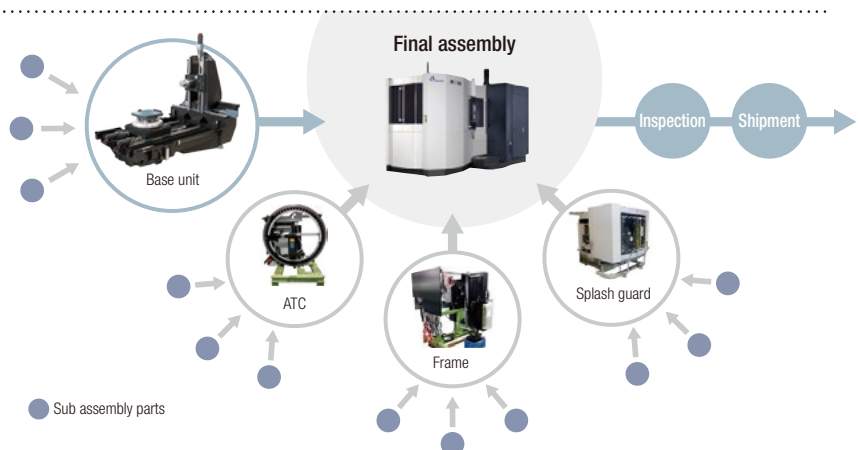
Surface finishing requires accuracy on the order of 1μm.



Dedicated machines are developed to process parts used in Makino equipment that efficiently manufactures high-precision machinery.

Unit subdivision

Makino products comprise several units, including spindle heads, tables, automatic tool changers (ATCs), and splash guards. We simplify each step of the assembly process by dividing the units into sub-assemblies comprising several parts. This allows for the assembly of different parts to proceed in parallel, shorter overall assembly time, and greater worker proficiency, resulting in a production system that ensures quality. In unit assembly plants, simplified assembly operations are being automated in stages, in the interests of improving efficiency and stabilizing quality.



Automation using robots is advancing for sub-assembly work that involves a small number of parts and simple structures.



Digital manuals for work procedures ensure uniform sub-assembly work, even with different operators.



Exterior parts and other components are organized into units for efficient production in dedicated assembly plants.



Units are consolidated at the main assembly plant and used to assemble finished products.

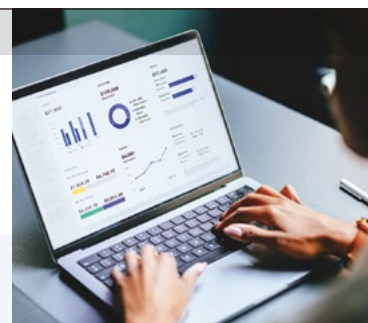


Makino Core Competencies



Financial Capital

Taking steps to boost asset efficiency with a better price-to-book ratio



Fiscal 2022 income up; sales at all-time high

Consolidated net sales in fiscal 2022 (ended March 31, 2023) amounted to ¥227,985 million (up 22.2% year on year), reaching an all-time high. Operating income was ¥17,492 million (up 54.8% year on year), ordinary income was ¥19,906 million (up 39.5% year on year), while net income attributable to owners of the parent was ¥16,073 million (up 33.5% year on year).

Orders received so far for fiscal 2023 have surpassed those for fiscal 2022, reaching ¥249,596 million on a consolidated basis (up 9.0% year on year). Amid the rapid resumption of economic activity after the pandemic had subsided, capital investment related to semiconductor manufacturing equipment was strong worldwide, and investment related to new-energy vehicles was brisk, especially in China.

Exchange rates impacted by the depreciating yen were one factor that drove sales and orders higher. At the same time, factors leading to sluggish profit growth include rising parts procurement costs, conditions in Ukraine, and soaring energy prices associated with the weaker yen.

Labor costs are also rising due to global inflationary trends, and although orders and sales grew, cost reductions aimed at securing profits could not keep up with inflation. During fiscal 2022 and 2023, in response to a rise in various costs, we implemented three price increases, the benefits of which we expect to realize during fiscal 2024.



Toshiyuki Nagano

Executive Vice President, Director
Executive Manager of Corporate Service Division

Stakeholders to benefit from greater disclosures, profits derived from strategic investments

Demand in the machine tool industry fluctuates wildly, with customer machining operations changing in line with trends in each industry sector. As a result, customer capital investment plans also change. For these reasons, Makino's medium-term management strategies must be flexible and responsive. Accordingly, we do not disclose medium-term management plans, which can change from day to day.

However, in order to deepen understanding of our efforts to enhance corporate value, we have decided to disclose new management indicators, including targets for sales, profit, and ROE.

First, we are targeting an operating margin ratio of 12% for fiscal 2027. As our main priority is to expand sales, we have set a consolidated sales target of ¥270.0 billion for fiscal 2027. The machine tool market is expected to grow at an annual rate of about 3%, and we aim to increase production capacity and improve productivity to keep pace with this growth.

Second, regarding new plants. In Japan, we will build a new plant near our existing one in Yamanashi Prefecture to increase our production capacity for large machines.

Overseas, we will expand our plant in China, and build a unit assembly plant in Vietnam for those products targeted for Asian markets. We will work to improve asset efficiency by shortening the cash conversion cycle (CCC) with a target ROE of 11%.

Third, we plan to use cash generated by these initiatives for capital investment and the development of high-value-added products with the aim of further improving productivity. We will also continue to invest in DX, including the creation of a platform for the management and sharing of information on all product parts, as well as the development of a system that expands maintenance and inspection services.

Fourth, with regard to employees, in addition to adjusting salary levels, we will proactively invest in upskilling and reskilling, providing more advanced learning opportunities, supporting language training and proficiency examinations, and developing human resources that can perform data utilization.

Fifth, we also plan to continue investing in environment-related measures. This entails ongoing related investments of around ¥300 million per year, and includes the introduction of solar power and eco-air conditioning at all plants, as well as conversion to LED lighting. Further, by fiscal 2030, we aim to reduce CO₂ emissions 42% (from the fiscal 2022 amount) and hope to achieve carbon neutrality by fiscal 2050.

Sixth, we consider the return of profits to shareholders through stable, regular dividends to be one of our most important management issues. We thus have also disclosed shareholder return indicators.

In fiscal 2022, the dividend was ¥150 per share of common stock. The total payout ratio five-year average from fiscal 2018 to fiscal 2022 was 33%. But, starting in fiscal 2024, we aim for returns of between 35% and 45%, on average. This will apply to the five-year period from fiscal 2023 to fiscal 2027, taking into account investment plans and earnings outlooks.

Fiscal 2027 targets

		Fiscal 2021 (April 1, 2021–March 31, 2022)	Fiscal 2022 (April 1, 2022–March 31, 2023)	Fiscal 2027 targets
Profit and loss	Sales (Millions of yen)	186,591	227,985	270,000
	Operating margin ratio	6.1%	7.7%	12.0%
Capital efficiency	ROE ¹	7.1%	8.6%	11.0%
	CCC ² (cash conversion cycle) (days)	163	171	155
Shareholder returns	Total payout ratio	20%	23%	35–45% on average over the five-year period from fiscal 2023 to fiscal 2027

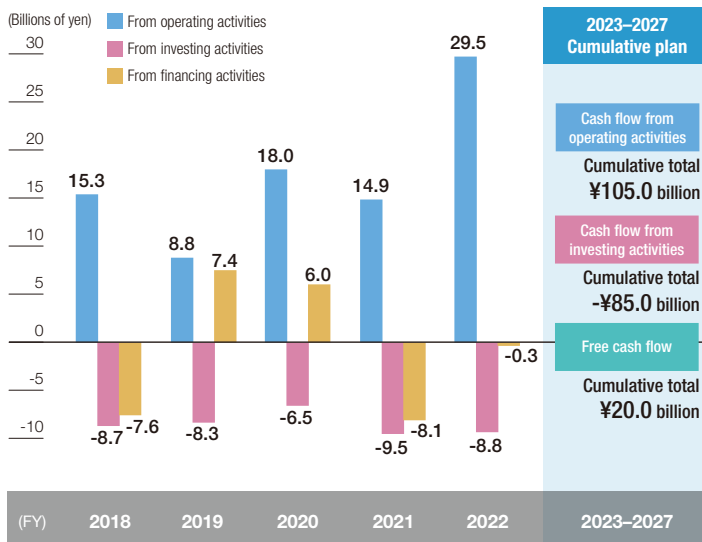
Notes:

1. ROE: net income attributable to owners of the parent ÷ shareholders' equity.

2. Cash conversion cycle: Notes and accounts receivable, trade turnover days + inventory turnover days - notes and accounts payable, trade turnover days.

Financial policy

Cash flows



Increasing asset efficiency

We are making an effort to shorten the CCC, so as to increase asset efficiency. The CCC indicator represents the number of days between the payment of notes and accounts payable, trade, and the collection of notes and accounts payable, trade.

Shortening the CCC frees up working capital and improves asset efficiency, but the resultant shorter inventory turnover period is an issue. To solve this, we plan to implement the following measures to shorten the turnover periods for parts, works in process, and product inventories.

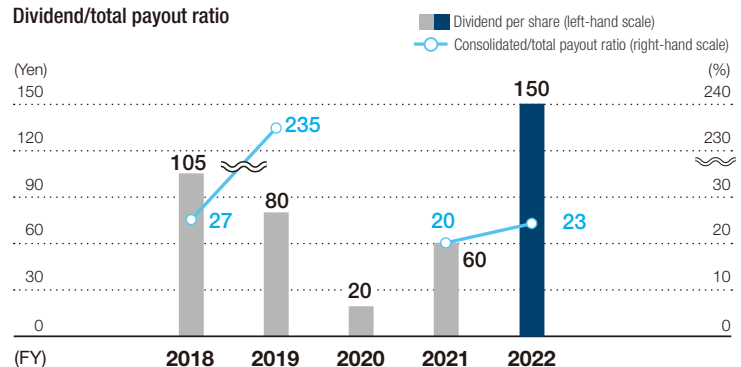
- Strengthen collaboration with suppliers and shorten lead times for procured parts to improve parts inventory turnover
- Implement initiatives to improve productivity for better process turnover
- Understand regional market trends and optimize overseas subsidiaries' product inventories to improve product inventory turnover

Makino will proactively invest in DX and human resources as necessary to implement the above initiatives, while making a Company-wide effort to improve asset efficiency.

Shareholder returns

Makino's basic policy is to return profits to shareholders through stable, regular dividends. In fiscal 2022, the Company paid a dividend of ¥150 per ordinary share. Looking back over the past five years, this represents a total payout ratio of around 33%. We plan to continue providing regular, stable shareholder returns for the foreseeable future.

Dividend/total payout ratio





Building Growth on Sustainability

Nobuhito Kusaba

Executive Officer, Deputy Executive Manager of
Corporate Service Division,
Chief of Sustainability Promotion Office



Tomofumi Nagatomo

Deputy Chief of Sustainability Promotion Office



Izumi Nakashima

General Manager,
Human Resource Department

Nobuhito Kusaba: In fiscal 2022, we established an in-house project team to promote carbon neutrality. Around this time, we were already receiving an increasing number of inquiries from investors and customers regarding our efforts to address the environment and other sustainability-related issues.

In order to respond to these and other disclosure requests from stakeholders, on October 1, 2022, we expanded the project team to create a new organization, the Sustainability Promotion Office, which advocates carbon neutrality and other environmental measures, and responds to inquiries from outside parties.

The Sustainability Promotion Office has begun calculating domestic non-consolidated Company greenhouse gas emissions. Further, it is setting reduction targets for disclosure items and indicators, as set forth in the Company's Corporate Governance Code, and recommended by the Task Force on Climate-related Financial Disclosure or TCFD and other organizations. We have completed the calculation of Scope 1 and 2 on a consolidated basis, and are now working on Scope 3 calculations.

Driving global activities, targeting carbon neutrality

Tomofumi Nagatomo: Although there are various external organizations that evaluate environmental and climate change issues, such as the [Carbon Disclosure Project or] CDP and TCFD, we started by formulating internal standards and establishing an organizational foundation for the disclosure of information to our stakeholders. We encourage communication among all global subsidiaries as we move steadily forward with relevant calculations, including at overseas subsidiaries.

We are promoting initiatives aimed at reducing greenhouse gas [GHG] emissions at all business sites in Japan, including by the introduction of solar power and other forms of renewable energy, as well as conversion to LED lighting.

We are considering, in our current plans for new plants, the introduction of zero energy buildings as one option, with the aim of achieving a zero balance between annual energy conservation and creation.

Overseas, there are wide disparities in terms of environmental awareness and the initiatives subsequently being undertaken. So, first of all, we want to align the Group through information sharing and education, in order that we might all face issues with the same degree of awareness.

With regard to reducing GHG emissions and conserving energy, the first step is to introduce, and convert to, renewable energy sources. We also believe it necessary to prepare for the introduction of carbon taxes. Overall, there are many initiatives that need to be promoted, and we want to move ahead steadily, one issue at a time.

Our R&D department receives inquiries from customers who want information related to machine power consumption. We are now in an age when customers can choose products on the basis of environmental impact if all other specs are the same.

In conjunction with our R&D department, we want to help reduce customers' environmental impact through their use of our products, as well as contribute to the realization of carbon neutrality.

The Sustainability Promotion Office is also responsible for internal environment-related promotions and employee education. My sense is that there is not a single Company department, division, or operation that is not related to sustainability, the SDGs, or carbon neutrality. About one year has passed since the Sustainability Promotion Office was established, and we plan to increase our visibility as a consultative organization within the Company. We will tackle the question of what, specifically, we should do while, at the same time, driving environmental activities on a global scale.

We can facilitate a better understanding of Makino through proactive information disclosure and dialogue.

Nobuhito Kusaba

We want to reduce customers' environmental impact through our products, and contribute to the realization of carbon neutrality.

Tomofumi Nagatomo

Makino culture and systems allow all staff to grow and play active roles, regardless of nationality or gender

Izumi Nakashima: Makino seeks human resources who can think and act autonomously. As a Company that has been expanding overseas since the 1970s, we have a culture of providing employees with opportunities, regardless of nationality or gender, as long as they think independently and demonstrate motivation.

In fact, we have appointed local, non-Japanese personnel to the positions of CEO and CFO at our overseas subsidiaries in Asia, the Americas, and Europe. In the area of governance, employees in domestic management serve as directors on the Boards of overseas subsidiaries and, while the parent company supervises and audits subsidiaries, day-to-day operations are entrusted to local staff.

By 2026, our goal is to increase the ratio of female managers from the current 2% to 5%, and to 15% over the long term. Then we will increase the percentage of female assistant managers, who are candidates for managerial positions, from the current 8% to 10%, and again to 15% over the long term.

In recent years, women who have chosen to work at Makino have done so after having carefully considered the possibilities offered by a career at our Company. It would seem the notion that machine tool manufacturers are unpopular with women is an old way of thinking. We have women working in various fields, both in Japan and overseas, and will continue to proactively recruit women in order to achieve our goals.

We also recruit foreign nationals, and accept interns. One young employee from abroad in their 20s who had an internship with us was then hired as a full-time employee, and put in charge of designing the exterior and concept of a new product that won the Grand Prize—the Minister of Economy, Trade and Industry Award—at the Industrial Machine Design Awards, sponsored by the Nikkan Kogyo Shimbun, Ltd., Japanese newspaper company providing comprehensive coverage of industrial matters. Employees such as this find it rewarding to work in a culture that provides them with opportunities and entrusts them with tasks, regardless of their nationality or age.

I believe it will become important to develop human resources who can be engaged in management and cooperate with overseas Group companies. We will work to create a system for the development of human resources with global perspectives and sensibilities, concerning local cultures and business customs overseas.



Makino provides all employees with opportunities and educational programs for self-improvement and skills development. We set up the Makino Business Academy, a learning platform for our employees, and offer a wide range of educational opportunities and support for doctoral and MBA programs, as well as courses and programs for basic and new technology at universities or research institutes.

We support the career development of individuals by providing opportunities for motivation at all levels, from new hires to senior employees, in order to enhance corporate value.

Dialogue with stakeholders is valued

Kusaba: In recent years, I have frequently heard the term “stakeholder engagement.” It seems to be used in a variety of ways, but putting strict definitions aside, I believe that everything starts with sincere dialogues with stakeholders.

Makino listens carefully to customers, realizing their needs. In order to meet our customers’ various needs, it is important to ensure diversity among our employees, and to listen carefully to the voices of our increasingly diverse workforce.

In addition, given the rapid changes in markets and technologies, it is difficult for Makino to manufacture products on its own, so it is important that we maintain good relationships with our suppliers. Of course, we also need to meet the expectations of our investors and local communities.

Sustainable corporate management is not possible without the support of these stakeholders, but it is also true that it is difficult to respond in ways that completely satisfy everyone.

Under these circumstances, it is important for us to facilitate a better understanding of Makino through proactive information disclosure and dialogue. We should do our utmost to achieve results, so that people have a sense of security and trust in our management, as well as a sense of our growth potential.

This type of virtuous cycle is the expectation implicit in the word “sustainability.” Moreover, we plan to continue our efforts to enhance corporate value through sustainability activities.

It is important to create a human resource development system, based on global perspectives and sensibilities.

Izumi Nakashima





Makino Core Competencies



Natural Capital

Global Group-wide pursuit of carbon neutrality



We have set a goal of reducing, by 2030, our consolidated greenhouse gas (GHG) Scope 1 and Scope 2 emissions. Scope 1 are direct emissions, from owned or controlled sources; Scope 2 emissions are indirect emissions, from the generation of purchased energy.

To this end, we have established a system to monitor energy consumption, including that of overseas subsidiaries, and are promoting the understanding of CO₂ emissions on a global basis.

In addition, we are promoting the reduction of emissions and waste at our plants, energy-saving activities and the use of renewable energy resources such as solar power. We are also developing greater energy-saving products which contribute to customers' daily production floors.

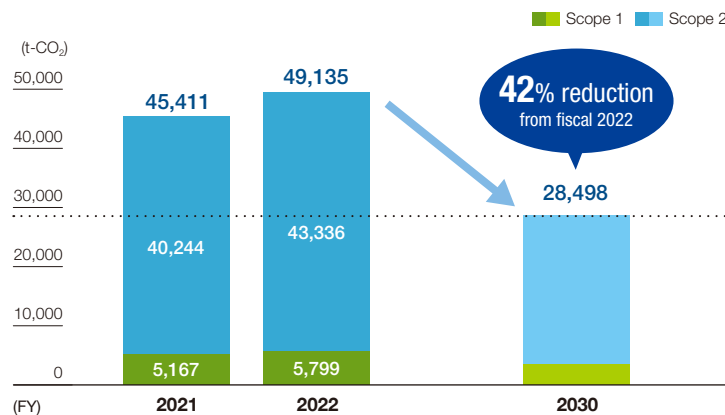
Environmental policy

Makino will always consider the environmental impact of all processes in which our products are produced and used by customers to build societal trust.

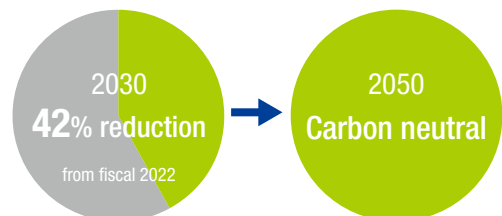
In accordance with this environmental policy, we will carry out the following activities.

1. Press ahead with energy and resource conservation.
2. Continue waste reduction.
3. Offer products with low environmental impact.
4. Comply with laws, regulations, and voluntary controls.
5. Prevent environmental pollution.
6. Continue to enhance our environmental management system.
7. Build awareness concerning environmental conservation.

Greenhouse gas emissions (Consolidated, Scope 1 & 2)



Long-term goal



Data on our website is updated as necessary.
→ <https://ir.makino.co.jp/en/esg/environment/>

Environment-friendly products and technologies

Given our goal of achieving carbon neutrality by 2050, since April 2023 we have been selling products that leverage those Makino technologies which allow high productivity using low power consumption.

eSTABILIZER (machine stabilization control technology) utilizes data from temperature sensors installed in machines to maintain high-precision machining by predicting and automatically controlling minute mechanical deformations caused by ambient temperatures.

This control also ensures stable, highly accurate processing even when factory temperatures change, thus helping reduce the amount of factory power consumed by air conditioning.

Other functions that result in energy saving and high productivity include Makino's proprietary GI control and Super GI.5 control technologies. These reduce machining time and increase machining accuracy through smooth and efficient feed motion. In addition to this, we also provide energy saving functions that optimize auxiliary equipment operation, which accounts for a substantial portion of processing power consumption.

Power consumption reduction rate

eSTABILIZER	12% ^{1, 2}
GI control and Super GI.5 control	9% ^{1, 3}
Energy-saving features	30% (standby mode) ⁴

Notes:

- 1: Compared with 2013.
- 2: Reduction rates differ depending on machine installation environment and size.
- 3: Reduction rates differ depending on processing program.
- 4: Reduction rates differ depending on machine type and usage conditions.

GHG reduction efforts

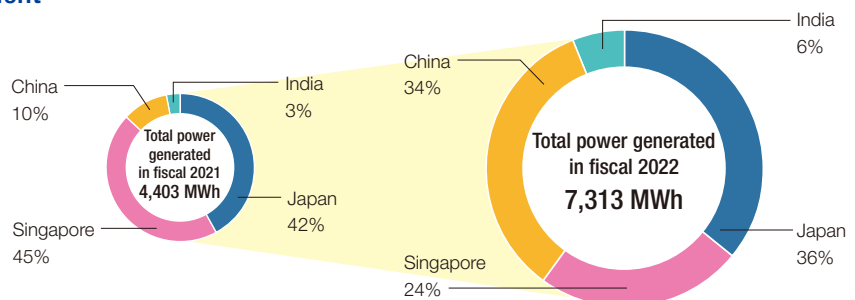
Makino is engaged in efforts to reduce GHG emissions with the goal of achieving carbon neutrality by 2050. It should be noted that we support the Task Force on Climate-related Financial Disclosures.



Governance	The Board of Directors approves major investment plans aimed at reducing environmental impacts, receiving reports, and deliberating the implementation status of these plans as appropriate. In the event serious environmental risks materialize or are very likely to occur, the Board receives reports on each risk and discusses the status of responses. Makino selects a General Manager of Environmental Management from management ranks with the authority to formulate and review environmental policies, prepare and provide management resources necessary for the establishment, maintenance, implementation, and management of the Environmental Management System, and appoints a person in charge of steadily implementing the system.						
Strategy	<p>Makino identified climate-related risks and opportunities with the potential of impacting business, strategies, and financial plans in the short, medium, and long-term based on multiple scenarios, with one assuming a 4°C temperature increase relative to pre-industrial times and the other assuming a limited temperature increase of 1.5°C. The following are risks Makino believes have the potential to significantly impact business.</p> <table border="1"> <tr> <td>Transition risks</td><td>• Ongoing GHG emissions pricing, stricter energy conservation policies, mandates and regulations on existing products and services, and rising raw material costs in response to GHG emission reductions</td></tr> <tr> <td>Physical risks</td><td>• Increased severity and frequency of cyclones, floods, and other extreme weather events</td></tr> <tr> <td>Opportunities</td><td>• R&D and expansion of low-carbon products and services</td></tr> </table>	Transition risks	• Ongoing GHG emissions pricing, stricter energy conservation policies, mandates and regulations on existing products and services, and rising raw material costs in response to GHG emission reductions	Physical risks	• Increased severity and frequency of cyclones, floods, and other extreme weather events	Opportunities	• R&D and expansion of low-carbon products and services
Transition risks	• Ongoing GHG emissions pricing, stricter energy conservation policies, mandates and regulations on existing products and services, and rising raw material costs in response to GHG emission reductions						
Physical risks	• Increased severity and frequency of cyclones, floods, and other extreme weather events						
Opportunities	• R&D and expansion of low-carbon products and services						
Risk management	The Risk Management Promotion Office compiles and prioritizes manifested risks. The Board of Directors focuses on legal reform trends, the results of management reviews, and other information as risks that must be addressed from a Company-wide perspective, then presents them to each division. Executive managers in each division select major risks to be addressed, taking into consideration risks prioritized from a Company-wide perspective and risks identified in their division. They establish response policies and conduct risk mitigation, which includes monitoring and measurement activities. A portion of the results of these efforts are disclosed on the Makino website. The Environmental General Manager summarizes environmental activities conducted during the year and conducts management reviews. In addition to sharing findings with each division, the Risk Management Promotion Office reflects findings related to key risks from a Company-wide perspective and reports them to the Risk Management Committee. In the event of a particularly important risk issue, the details are reported to the Risk Management Committee for discussion as necessary.						
Metrics and targets	To achieve carbon neutrality (virtually zero greenhouse gas emissions) by 2050, we set a target for CO ₂ emissions reductions (Consolidated, Scope 1 and 2) of 42% compared to 2022 by 2030 and are engaged in initiatives to achieve this goal.						

Global solar power generation equipment

Makino continues to install solar power generation equipment at domestic and overseas plants and facilities. As a result, 7,313 MWh of power were generated in fiscal 2022, an amount that is steadily increasing globally. We will continue to promote the use of sources of renewable energy, while striving to continue reducing GHG emissions.



Overseas



February 2019
Makino Asia Pte Ltd
(Singapore)



July 2021
Makino India Pvt. Ltd.
(Bangalore, India)



October 2021
Makino (China) Co., Ltd.
(Kunshan, China)



July 2022
Makino J China Co., Ltd.
(Wuhan, China)



April 2023
Makino Korea Co., Ltd.
IoT Center
(Yongin, South Korea)

Japan



February 2018
Atsugi Plant factory No.3
(Kanagawa Prefecture)



July 2018
Kobe Technical Center
(Hyogo Prefecture)



March 2021
Atsugi Plant B & C wings
(Kanagawa Prefecture)



November 2021
Ota Sales Office
(Gunma Prefecture)



December 2021
Fuji Katsuyama Plant
(Yamanashi Prefecture)



December 2022
Atsugi Plant D & E wings
(Kanagawa Prefecture)



January 2023
Fuji Yoshida Plant D wing
(Yamanashi Prefecture)



July 2023
Fukuoka Sales Office
(Fukuoka Prefecture)



Makino Core Competencies



Human Capital

Diverse, Free-thinking Staff Drive Growth



If we are to continue as a partner in resolving issues for customers in various countries, regions, and industries, it is free-thinking employees able to make customer proposals who shall drive Company growth.

We will continue providing top-quality, high-precision machine tools, while creating an organization in which diverse human resources can play an active role in product development, production, sales, service, and other areas, so that we can accurately respond to changing needs.

Human resource development and internal environmental improvement policies

- 1 To realize a virtuous cycle in which employee growth leads to Company growth and growth of the Company further promotes employee growth, Makino provides various opportunities for career development and skill enhancements.
- 2 Makino will endeavor to provide a working environment that embraces different values to continue creating innovative products and services that can respond to challenges faced by our customers.

Human resource development

To promote education and skills development in line with human resource development policies, Makino provides learning opportunities through level-based training, in addition to self-development based on comprehensive training and development systems.

In 2021, we set up the Makino Business Academy, an in-house university that serves as a platform for employee educational opportunities. Further, employees may study independently, doing joint research with universities, enrolling in doctoral or master's degree programs in specialized fields. Supervisors provide staff with medium-term career support, use the in-house open recruitment system to assist those voluntarily making career changes, and provide opportunities for staff to interact with employees at other companies and overseas subsidiaries.

Topics

Human resources for the future

Makino jointly conducts research with universities and graduate schools at home and abroad, with a view to having access to human resources in the future. To date, some students involved in such activities have become Makino employees after having developed an interest in machine tools.

Overseas, we are conducting a joint research program with the Technical University of Aachen, Germany, which is known as a machine tool powerhouse on a par with Japan. After graduation, students who have participated in the program receive our help to continue basic research on machine tools at research institutes.

We encourage our employees to grow by:

Providing level-based training

Helping them acquire a doctorate or other degree

Supporting their personal academic development

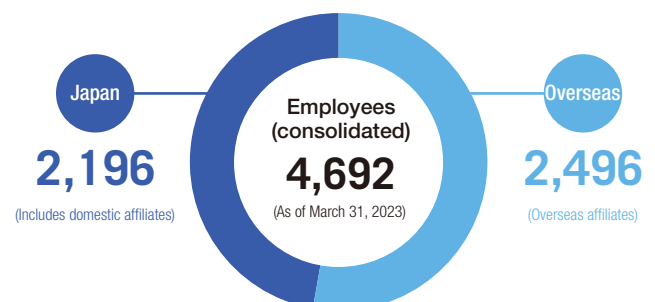
Enabling them to study at the Makino Business Academy

Human rights initiatives

The Makino Group is a multinational corporation that employs more non-Japanese than Japanese nationals. Overseas branches manage employees in accordance with the laws, systems, and practices in the countries in which they operate.

Many people from abroad also work for Makino in Japan. Here, the Company's internal rules and regulations, including its internal approval systems, are translated into English. Moreover, Japanese and overseas nationals are treated the same in terms of wages, promotion, and wage increases.

We have a team that specializes in hiring foreign nationals. Thus, for example, if an overseas national prefers European-style terms of employment rather than a lifetime position, we are flexible and do not make them follow Japanese practices.



Promoting diversity

Makino business activities are global, and the amount of overseas business it handles far surpasses the Company's domestic business. With respect for diversity deeply rooted in our Company, we believe a diverse workforce is critical for achieving our business goals.

At present, approximately 2.0% of management positions (section chief or higher) at Makino and its domestic Group companies are occupied by women. We aim to increase this ratio to 5% by 2026, then to some 15% over the long term.

To this end, we intend to increase the ratio of female section chiefs (candidates for managerial positions), which currently stands at approximately 8%, to around 10% by 2026, then to some 15% over the longer term.

Childcare leave utilization rate (%) (Fiscal 2022)

	Women	Men	Overall
Non-consolidated	100	47.8	58.6
Domestic consolidated	100	40.5	54.6

Employee engagement

Makino regularly conducts surveys to ascertain employee satisfaction or dissatisfaction with their work. After analyzing the results obtained from each division, measures that might be taken to improve matters are considered.

In evaluating human resources, we conduct interviews and leverage communication between supervisors and subordinates. In this way we ensure that evaluations are satisfactory and are used for future skills development.

Female employee ratio (%) (As of March 31, 2023)

	Manager	Section chief	Regular employee	All employees
Non-consolidated	3.1	5.6	10.8	11.7
Domestic consolidated	2.1	7.7	11.8	14.6

Education programs

As part of our efforts to develop human resources who can think and act autonomously, we plan to strengthen in-house education, including level-based training.

We provide growth opportunities for all levels of employees and encourage the drawing up of personalized career plans.

We also offer a variety of benefit programs to ensure that staff have an appropriate work-life balance. Rather than taking a one-size-fits-all approach, we have in place measures that respond to changes in each individual's life stage. These include childcare and nursing care support programs.



New employee training



Education available

Type of training	General positions	Line leaders	Leaders (Section chiefs)	Specialists	Managers	General Managers
Level-based		One-on-one training			One-on-one training	
		Evaluator training			Evaluator training	
					New manager training	
	Level-based training					
Career development	Mid-career and senior employee training					
	In-house examinations					
	Bachelor's degrees for working professionals					
	Doctoral degrees for working professionals					
	Master of Business Administration (MBA)					
New employee	Engineering training					
	Craftsmanship training					
	Cross-functional training					
Company-wide	MAKINO Business Academy					
	Harassment training					
	Language training					
	IT training					

Corporate Governance

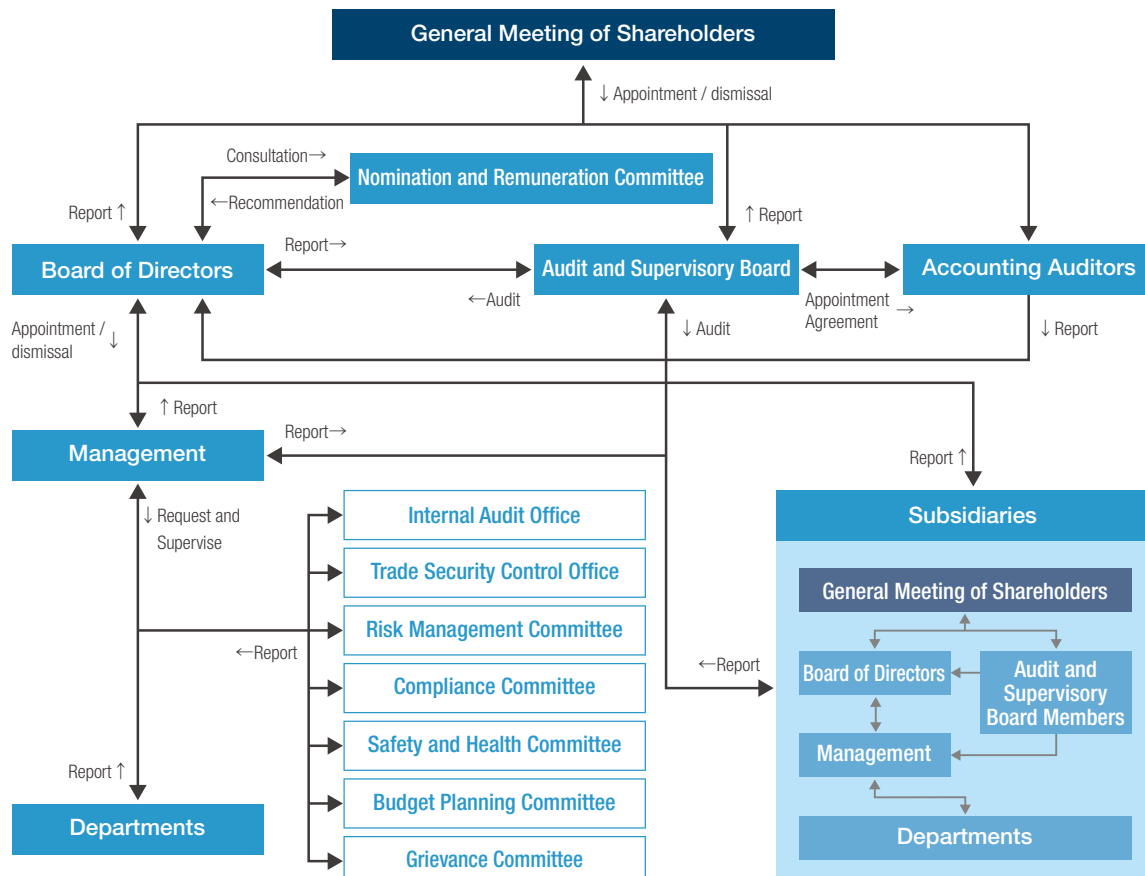


Basic approach to corporate governance

In line with its corporate philosophy and basic management policies, Makino considers corporate governance to be one of the measures that enhances its corporate value in the medium to long term, while giving due consideration to various stakeholders.

We aim to establish effective and efficient corporate governance given the extremely volatile nature of earnings in the machine tool industry.

Corporate governance structure



Corporate governance structure

Makino has adopted a company structure with an audit and supervisory board from the institutional designs stipulated in the Companies Act and related laws. In addition, for the sake of transparency and more active discussion, four of the Company's eight directors are external directors (including one woman), and two of the three Audit and Supervisory Board members are external members. In an industry where earnings fluctuate widely from year to year, we have established the aforementioned structure to ensure that we can make decisions promptly, respond quickly to changes in the environment, and make sound management decisions.

Makino's policy is to appoint external directors and external corporate auditors based on their experience working for other organizations and their ability to appropriately fulfill the role from an independent standpoint of supervising or auditing the execution of duties by Makino's directors entrusted by shareholders. We also believe the appointment of external directors allows for the inclusion of a wide range of management expertise and ensures a more thorough role for the Board of Directors.

Director nomination and remuneration are decided by the Board of Directors after consultation and reviewing the recommendation of the Nomination and Remuneration Committee, a voluntary advisory committee to the Board of Directors chaired by an external director and comprising of a majority of external directors.

Appointment and dismissal of senior management, nomination of candidates for post of director and member of Audit and Supervisory Board

It is Makino's policy to select candidates who are qualified for the duties to be entrusted to them and who excel in character, experience, and ability. The representative director prepares candidate proposals.

Management executives are discussed and approved by the Board of Directors after deliberation by the Nomination and Remuneration Committee. The Board of Directors approves the candidates for Audit and Supervisory Board membership in a proposal presented to the General Meeting of Shareholders with the consent of the Audit and Supervisory Board.

In accordance with the regulations of the Board of Directors, the dismissal of senior executives is based on the policy of dismissal or non-reappointment in the event of misconduct or serious breach of laws, regulations, or the Articles of Incorporation in the performance of their duties, or in the event that they are unable or unwilling to perform their duties due to physical or mental disability.

Moreover, Makino believes that maintaining an appropriate balance, diversity, and size of the Board of Directors in aggregate, in terms of knowledge, experience, and skills is important for the effectiveness of the Board of Directors and considers these factors when selecting board candidates. Please refer to page 32 for the skill matrix and other attributes of Makino's directors.

Executive remuneration

Remuneration for directors is determined by the Board of Directors in consideration of shareholder value so that it functions as an incentive to improve the Company's corporate performance and the resultant corporate value, as well as in consideration of the individual responsibilities of each director. Specifically, directors' remuneration consists of basic remuneration as monthly fixed remuneration in accordance with their responsibilities, performance-linked remuneration based on evaluations of the Company's business performance and individual directors, and stock-based remuneration in the form of restricted stock. External directors, meanwhile, receive only base remuneration as fixed remuneration.

At the Board of Directors meeting held on May 16, 2022, a resolution was passed to introduce a restricted stock compensation plan with the aim of providing incentives to sustainably increase the Group's corporate value and to further promote value sharing with shareholders.

Overview of corporate governance structure

Organizational format	Company with an Audit and Supervisory Board
Directors	8 (including 4 external directors)
Audit and Supervisory Board members	3 (including 2 external audit and supervisory board members)
Term of office of directors under the articles of incorporation	1 year
Executive officer system	Adopted
Voluntary advisory committee to the Board of Directors	Nomination and Remuneration Committee
Accounting auditor	Gyosei & Co.
Corporate governance report	https://ir.makino.co.jp/library/corporate-governance/

Evaluating the efficacy of the Board of Directors

We conduct an annual survey of Board of Directors participants in recognition that improving the efficacy of the Board of Directors is one of the issues we face. The following is a summary of the most recent results. While we believe that our Board of Directors is performing effectively, we will work to further improve its efficacy in the future.

- Regular monthly reports and regular resolutions, as well as business plans, investments, and other necessary agenda items are deliberated.
- Directors and Audit and Supervisory Board members can engage in an active and constructive exchange of opinions and comment as appropriate.
- The activities of the Board of Directors including the number of meetings and the time spent on them are rated at a certain level by the directors and Audit and Supervisory Board members.

Policy on cross-shareholdings

Makino holds shares in operating companies for the purpose of maintaining relationships with its business partners and ensuring that transactions are smooth over the long term.

The Board of Directors annually reviews the appropriateness of each individual shareholding from a holistic standpoint, scrutinizing the degree of benefit commensurate with the cost of capital in terms of economic rationality and qualitatively considering the potential for contributing to the enhancement of Makino's medium-term corporate value through activities such as joint research and development.

As a result of this review, Makino will sell shares that are deemed to have minimal value as cross-shareholdings.

Succession planning

Makino's basic policy is to select its chief executive officers, including the president, from among individuals who are well versed in the machine tool industry and the attributes of Makino's business, and who have leadership qualities. To contribute to Makino's sustainable growth and medium- to long-term enhancement of corporate value, we provide educational opportunities to candidates for the next generation of executives who have the necessary attributes to serve through our executive officer system. We have also established the Makino Business Academy as an internal institution to provide employees with opportunities for education on a wide range of management-related topics.

The Nomination and Remuneration Committee will continue to consider the optimal state of Makino's succession planning.

Corporate Governance

Board of Directors



Directors

1

President and Representative Director

Shotaro Miyazaki

Apr. 1986 Joined the Company
Jan. 1999 Director of Heidenreich & Harbeck Werkzeugmaschinenfabrik GmbH
June 2000 Representative Director of Makino Formenbautechnologie GmbH
Mar. 2011 General Manager, Asia Sales Department, Sales Division of the Company
Sept. 2016 General Manager, Overseas Sales Department, Sales Division
Sept. 2021 Executive Officer; Deputy Executive Manager, Sales Division; General Manager of Sales & Application, Makino Europe GmbH
June 2022 President and Representative Director (to present)

2

Executive Vice President and Representative Director,
Executive Manager of Corporate Service Division; Office
Manager of Trade Security Control Office

Toshiyuki Nagano

May 2004 Joined the Company
June 2006 Director of Makino J Co., Ltd.
Nov. 2008 General Manager of Finance Department of the Company
June 2009 Director; General Manager of Finance Department; Manager, Energy Control Office
Apr. 2011 Director; Executive Manager, Corporate Service Division; Manager, Trade Security Control Office; Manager of Energy Control Office
June 2014 Vice President, Director; Executive Manager, Corporate Service Division; Manager, Trade Security Control Office; Manager, Energy Control Office
June 2016 Executive Vice President, Director; Executive Manager, Corporate Service Division; Manager, Trade Security Control Office; Manager, Energy Control Office
Apr. 2017 Executive Vice President, Director; Executive Manager, Corporate Service Division; Manager of Corporate Planning Office; Manager of Trade Security Control Office; Office Manager of Energy Control Office
Feb. 2021 Executive Vice President, Director; Executive Manager of Corporate Service Division; Office Manager of Trade Security Control Office; Office Manager of Energy Control Office
June 2021 Executive Vice President, Representative Director; Executive Manager of Corporate Service Division; Office Manager of Energy Control Office; Office Manager of Trade Security Control Office, Risk Management Promotion Division
June 2022 Executive Vice President, Representative Director; Executive Manager of Corporate Service Division; Office Manager of Trade Security Control Office; Office Manager of Energy Control Office
Oct. 2022 Executive Vice President, Representative Director; Executive Manager of Corporate Service Division; Office Manager of Trade Security Control Office (to present)

3

Executive Vice President and Representative Director;
Executive Manager of Production Division

Tatsuaki Aiba

Apr. 1980 Joined the Company
Nov. 2002 General Manager, Fuji Katsuyama Production Department
Dec. 2004 General Manager, Fuji Katsuyama Production Department; General Manager, Procurement Department
June 2005 Director; Executive Manager, Production Division
Oct. 2012 Director; Executive Manager, Production Division; Executive Manager, Fuji Katsuyama Plant
June 2014 Vice President, Director; Executive Manager, Production Division; Executive Manager, Fuji Katsuyama Plant
June 2020 Vice President, Director
Sept. 2021 Vice President, Director; Executive Manager, Quality/Procurement Division
June 2022 Executive Vice President, Representative Director; Executive Manager, Production Division (to present)

4

Director, Executive Manager of R&D Division

Haruyuki Shiraishi

Apr. 1985 Joined the Company
Jan. 2008 Deputy Executive Manager, Development Division
Feb. 2013 Deputy Executive Manager, Production Division
Jan. 2016 Director, Makino Asia Pte Ltd
June 2020 Executive Officer; Executive Manager, Production Division; Executive Manager, Company's Fuji Katsuyama Plant
June 2022 Director, Executive Manager, R&D Division (to present)
Feb. 2023 Director; Executive Manager, R&D Division; Manager of Design/Production Data Utilization Promotion Office (to present)

5

Director, External and Independent

Naofumi Masuda

June 2008 Managing Officer; TOYOTA MOTOR CORPORATION (Kinuura Plant General Manager, Myochi Plant General Manager)
June 2010 Senior Managing Director, ADVICS CO., LTD.
June 2014 Executive Vice President, ADVICS CO., LTD.
June 2017 Advisor & Chief Engineer, ADVICS CO., LTD.
June 2018 Executive Advisor, ADVICS CO., LTD.
June 2019 External Director & Member of the Audit & Supervisory Committee, YASUNAGA CORPORATION (to present)
June 2020 Director of the Company (to present)

Significant concurrent positions

External Director & Member of the Audit & Supervisory Committee of YASUNAGA CORPORATION

6

Director, External and Independent

Kodo Yamazaki

Apr. 1989 Assistant Professor of Takayama Junior College
Apr. 1994 Professor of Takayama Junior College
Apr. 2001 Professor, Faculty of Law, Kumamoto University
June 2003 Managing Director, Japan Tax Jurisprudence Association
Apr. 2007 Dean, Faculty of Law, Kumamoto University
Apr. 2015 Trustee and Deputy President, Kumamoto University
Apr. 2020 Professor, Graduate School, Kumamoto Gakuen University (to present)
June 2020 Director of the Company (to present)

Significant concurrent positions

Professor of Graduate School, Kumamoto Gakuen University

Skill Matrix

			Management	International Experience	R&D / Production	Sales / Marketing	Finance /Accounting	Legal / Risk Management
1	Shotaro Miyazaki	President and Representative Director	●	●		●	●	
2	Toshiyuki Nagano	Executive Vice President and Representative Director	●	●			●	●
3	Tatsuaki Aiba	Executive Vice President and Representative Director	●		●	●		
4	Haruyuki Shiraishi	Director	●	●	●			
5	Naofumi Masuda	Director, External and Independent	●		●			●
6	Kodo Yamazaki	Director, External and Independent	●				●	●
7	Kazumi Nishino	Director, External and Independent	●				●	●
8	Kazuo Takahashi	Director, External and Independent	●			●	●	●
9	Akio Koumura	Full-time Audit and Supervisory Board member	●		●	●		
10	Jinei Yamaguchi	Full-time Audit and Supervisory Board member	●	●			●	●
11	Jiro Nakashima	Audit and Supervisory Board member	●				●	●

Directors

7 Director, External and Independent

Kazumi Nishino

Apr. 1992 Joined Fuji Photo Film Co., Ltd.

Apr. 2006 Associate Professor, Department of Management of Science and Technology, Graduate School of Management of Science and Technology of Tokyo University of Science

Apr. 2017 Associate Professor, Graduate School of Commerce and Management, Hitotsubashi University

June 2019 Outside Director, Orient Corporation (to present)
Outside Independent Director of FURUKAWA CO., LTD. (to present)

Dec. 2019 External Board Director of MiTeL Co., Ltd.

Apr. 2022 Professor of Business Administration, Graduate School of Business Administration, Hitotsubashi University (to present)

June 2022 Director of the Company (to present)

Significant concurrent positions

Professor of Business Administration, Graduate School of Business Administration, Hitotsubashi University
Outside Director, Orient Corporation
Outside Independent Director, FURUKAWA CO., LTD.

8 Director, External and Independent

Kazuo Takahashi

Apr. 2007 Executive Officer, Daiwa Securities SMBC Co. Ltd.

Jan. 2010 Executive Officer, Daiwa Securities Capital Markets Co. Ltd.

Apr. 2010 Executive Managing Director, Daiwa Securities Capital Markets Co. Ltd.

Apr. 2012 Executive Managing Director, Member of the Board, Daiwa Securities Co. Ltd.

Apr. 2013 Senior Executive Managing Director, Member of the Board, Daiwa Securities Co. Ltd.

Apr. 2015 Senior Executive Managing Director, Member of the Board, Head of Corporate Institution of Daiwa Securities Co. Ltd.

Apr. 2017 Deputy President, Daiwa Securities Group Inc.
Deputy President, member of the Board, Daiwa Securities Co. Ltd.

June 2017 Director, Deputy President, Daiwa Securities Group Inc.
Deputy President, member of the Board, Daiwa Securities Co. Ltd.

June 2020 Deputy President, Daiwa Securities Group Inc.
Deputy President, Member of the Board, Daiwa Securities Co. Ltd.

Apr. 2022 Adviser, Daiwa Securities Co. Ltd.

June 2023 Director of the Company (to present)

Significant concurrent positions

Outside Director and Audit and Supervisory Committee Member, Paramount Bed Holdings Co., Ltd.

Audit and Supervisory Board Members

9 Full-time Audit and Supervisory Board Member

Akio Koumura

Apr. 1975 Joined the Company

July 1999 Office Manager, UG/EYE Development Office

Dec. 2004 Office Manager, UG/EYE Development Office; General Manager, DM System Development Department

June 2005 Director; Office Manager, UG/EYE Development Office; General Manager of DM System Development Department

Feb. 2006 Director; Executive Manager, Mold Software Division

June 2008 Director, Executive Manager of Sales Division

Aug. 2009 Director, Executive Manager of Sales Division; Domestic Sales Controller

Feb. 2010 Director; Executive Manager of Sales Division; Executive Manager, Mold Software Division

May 2010 Director; Executive Manager, Sales Division; Executive Manager, Production Software Division

June 2011 President & Representative Director, Makino Technical Service Co., Ltd.

June 2020 Advisor to Makino Technical Service Co., Ltd.

June 2021 Full-time Audit and Supervisory Board Member of the Company (to present)

10 Full-time Audit and Supervisory Board Member, External and Independent

Jinei Yamaguchi

Apr. 1984 Joined Mitsubishi Bank, Ltd. (currently MUFG Bank, Ltd.)

Apr. 2006 Deputy Branch Manager, Singapore Branch, Mitsubishi Bank, Ltd.

July 2009 General Manager, International Business Department, Mitsubishi Bank, Ltd.

July 2011 Branch Manager of London Branch, Mitsubishi Bank, Ltd.

July 2013 Seconded to Chiyoda Corporation
Acting General Manager, Planning Administration Division

Apr. 2014 Transferred to Chiyoda Corporation
Executive and Acting General Manager, Planning Administration Division, Chiyoda Corporation

Apr. 2015 Executive Officer and Acting General Manager, Project Procurement & Logistics Division, Chiyoda Corporation

Apr. 2018 Executive Officer and Acting General Manager of Corporate Planning Division, Chiyoda Corporation

July 2019 Executive Officer and Assistant General Manager, Finance & Accounting Division, Chiyoda Corporation

June 2020 Full-time Audit and Supervisory Board member of the Company (to present)

11 Audit and Supervisory Board Member, External and Independent

Jiro Nakashima

Aug. 1983 Registered as a Certified Public Accountant
Opened Nakashima Jiro Certified Public Accountant Office (to present)

Nov. 1984 Member of Serisawa Accountant Office (currently GYOSEI & CO.)

July 2005 Representative member of Serisawa Accountant Office (currently GYOSEI & CO.)

June 2011 Retired from GYOSEI & CO.

June 2012 Audit and Supervisory Board member of the Company (to present)

Significant concurrent positions

Nakashima Jiro Certified Public Accountant Office

Message from external directors



Naofumi Masuda Director, External and Independent

Management seen committing to goals based on shared values

With the addition of new Board members, including a director in charge of technological development and an external director specializing in business administration, I feel the Board of Directors has become more diverse.

While it has always maintained an environment in which opinions can be freely and openly exchanged, we now have a structure adapted to current conditions that invigorates discussion of issues and measures related to the core of Makino's business, from development and production, to sales, while responding to major changes in global markets. I expect management to respect the autonomy of its overseas operations, while committing to goals based on the shared value of remaining close to customers and resolving the issues they face.

I appreciate the comprehensive and multifaceted approach Makino takes with regard to sustainability-related measures. In particular, as Makino has a long history of overseas expansion, my impression is that the Company has a diverse global pool of talent.

In the future, when developing global business, having human resources with diverse perspectives will become a major strength for the Company. With regard to environmental issues, I expect Makino's efforts to be recognized both for Company contributions to the environment, including the installation of solar panels among other efforts, as well as for customer contributions to the environment realized through their use of Makino products.



Kodo Yamazaki Director, External and Independent

Boosting corporate value by targeting social issues

In fiscal 2022, we overcame parts procurement difficulties as the economy recovered, following the sharp decline in orders during the pandemic. As a result, Makino achieved record-high sales.

The Company's Quality First corporate philosophy and its approach to solving customer problems have enabled it to formulate and execute capital investment plans, including the construction of futuristic plants.

In addition to regular agenda items, the Board of Directors discusses reports related to the business plans of all the Company's divisions: business divisions and subsidiaries.

We proactively engage in deliberations incorporating diverse opinions based on the expertise of each director. Further, site inspections are conducted at plants, sales offices, and service centers to facilitate a better understanding of workplaces before decisions are made.

In order to contribute to the realization of a sustainable society, I expect Makino to take proactive steps to reduce its environmental impact in response to global environment-related issues. The Company should develop products with low power consumption, introduce and update energy-efficient factory equipment, work to green factories and surrounding areas, and install solar panels.

Compliance

Makino has established and implemented the following systems as measures to ensure compliance.

- **Code of Conduct:** We have established the "Makino Milling Machine Employee Code of Conduct," which summarizes the behavior to be observed by our officers and employees and have notified all employees of the code.
- **Compliance Committee:** The Compliance Committee is chaired by the executive manager of the Corporate Service Division and reports and deliberates on measures and activities necessary to promote compliance, including the status of compliance, details of new and revised laws and regulations and response to them, as well as reportable items and material compliance breaches.

In addition, the committee's activities are reported to the Board of Directors on a regular basis and on an ad hoc basis for major issues.

- **Whistleblowing system:** The Company has established a whistleblowing system, with internal and external contact points, and has formulated "Rules for Public Interest Reporting System Operation," which stipulate protective measures for whistleblowers. Reporting and suggestion boxes were installed in 2022 at each business location to facilitate whistleblowing.
- **Relationship with suppliers:** We have established and distributed a code of conduct for suppliers that we expect our suppliers to comply with in terms of human rights, health and safety, labor environment, environment, fair trade, and related issues. We have also established "Guidelines for Green Procurement" for the use of chemical substances, and promote the procurement of materials, etc. with low environmental impact.

Trade security

Machine tools are essential equipment for the production of nuclear weapons and arms, and are subject to export controls if they deliver a certain level of performance. Because many of our products meet high precision requirements, many of them are subject to export regulations.

We have established regulations for security aspects of export control to ensure full compliance with export control regulations. A special department reports directly to the president. It is headed by a director and independent of the sales division. It examines export cases, provides training, conducts internal audits, and ensures rigorous compliance with all regulations.



Kazumi Nishino

Director, External and Independent

Human resource development based on feedback

The Board of Directors meetings are characterized by a lively exchange of questions and opinions among both directors and Audit and Supervisory Board members. I feel that diversity and expertise in governance are evident in the questions posed, opinions given, and discussions held in accordance with each members' area of responsibility and background.

Although the Board often reviews and decides on proposals of a highly specialized nature, the divisions in charge provide reference materials as needed, which facilitates a common understanding of issues and enables external directors to make proposals based on their professional perspectives.

I find that this level of consideration and the proactive approach provide a sense of the Company's transparent governance and fair, decisive decision-making process.

In addition to my role on the Board, I have visited various business sites in Japan in my capacity as an external director in an efforts to reflect frontline feedback in management.

As someone who specializes in business administration, communicating with employees who engage in work with an awareness of the issues was valuable for my future activities. At present, when efforts to manage human capital are being called into question, it is essential that Makino enhance its systems to maintain high levels of employee motivation and skill. These are measures I would like to continue discussing in the future.



Kazuo Takahashi

Director, External and Independent

Developing products resilient to market changes

Having spent many years working in securities companies, I provide recommendations and advice based on my professional expertise with regard to measures for realizing management conscious of capital costs and stock prices, as is required of listed companies by the Tokyo Stock Exchange.

Specifically, I proactively propose measures, from an IR perspective, to improve the price-to-book ratio to above 1x.

Since its founding in 1937, Makino has created many advanced products and technologies as a machine tool manufacturer. The Company's pioneering spirit and Quality First philosophy are evident in reports to the Board of Directors, as well as in the exchange of opinions and deliberations, which I believe are important and should be maintained.

Even bigger changes are expected in future in the internal and external environments. Thus, it is especially important for Makino to differentiate itself from competitors in Asia, which is the Company's most important market.

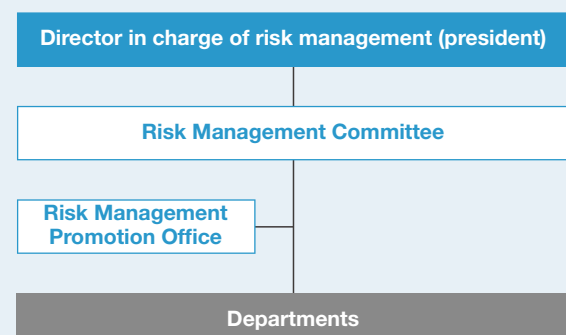
I expect Makino to proceed with investments in the market with a sense of speed while bearing in mind the risks, and to develop and manufacture new products as quickly as possible that live up to its pioneering spirit.

At the same time, I believe Makino must promptly address human resource development, and promote the active participation of a new generation of women, selecting executive candidates and promoting mid-career recruitment.

Risk management

The Company's policy is not only to manage the risk of loss but also to prevent deviation from laws and regulations and the Articles of Incorporation and thus ensure efficient business execution. This is accomplished by establishing a risk management framework, which is the basis of the structure to ensure the appropriateness of operations. As part of the risk management framework, the Company has positioned the president as the officer in charge of risk management and established the Risk Management Committee to serve as an advisory body to the president. In principle, the Risk Management Committee meets twice a year to report on risks and the status of initiatives. In the event that a risk with a high degree of damage materializes, meetings are held as needed to report and deliberate on the status of the response, and matters that are particularly material are reported to the Board of Directors for necessary deliberation.

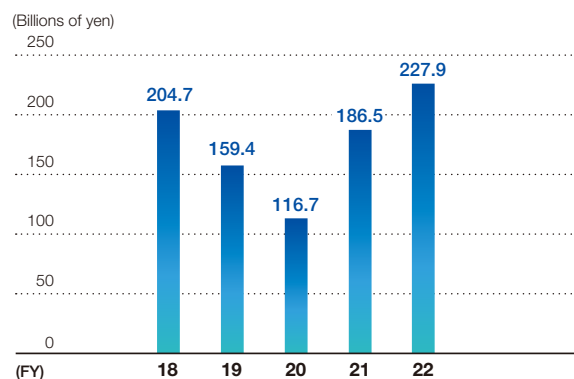
Risk management framework



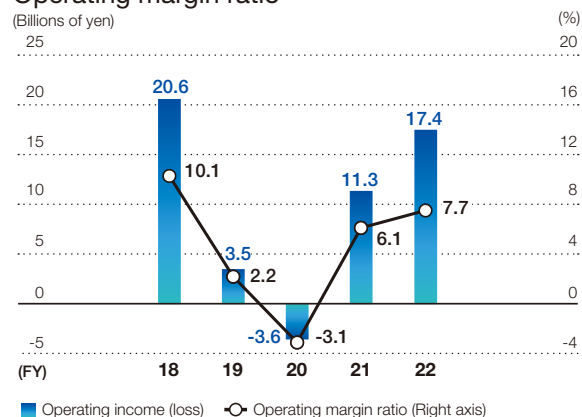
Financial and Non-financial Highlights

Financial Highlights

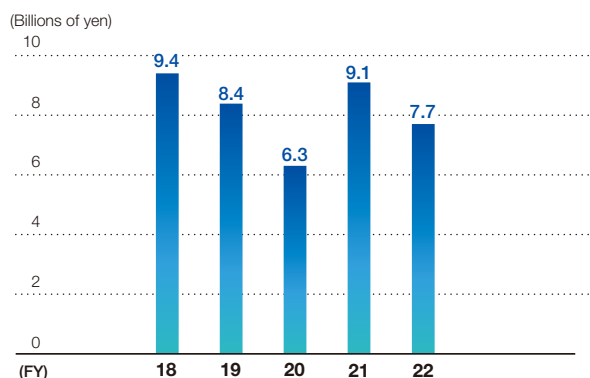
Consolidated net sales



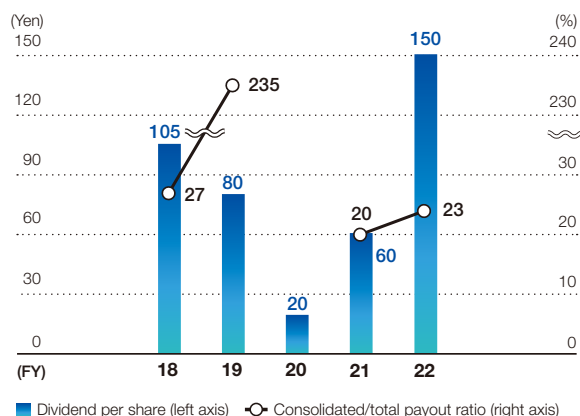
Consolidated operating income (loss)/ Operating margin ratio



Consolidated capital expenditures

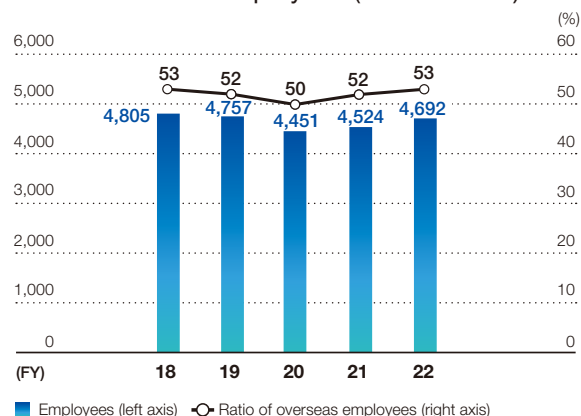


Dividend/total payout ratio

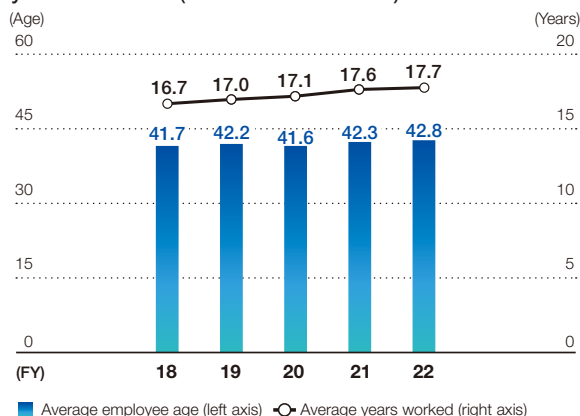


Non-financial Highlights

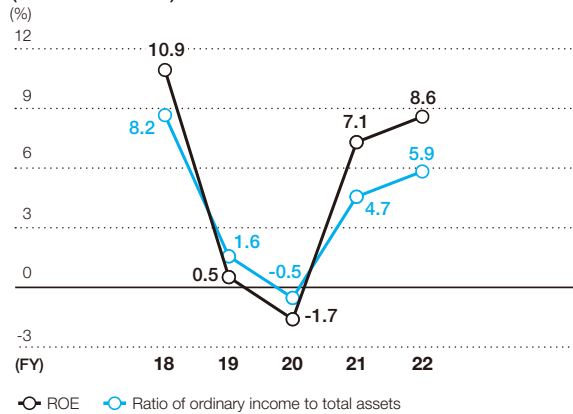
Employees/ ratio of overseas employees (consolidated)



Average employee age/ years worked (non-consolidated)



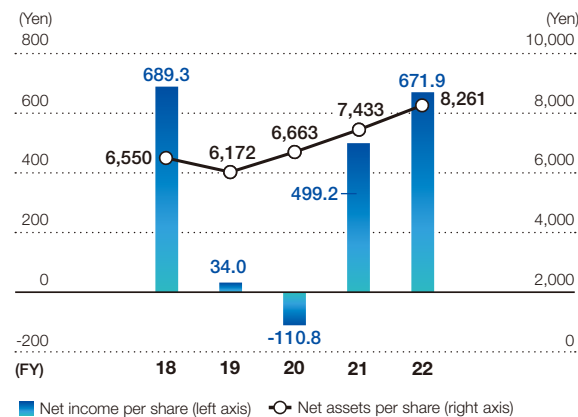
ROE/Ratio of ordinary income to total assets (consolidated)



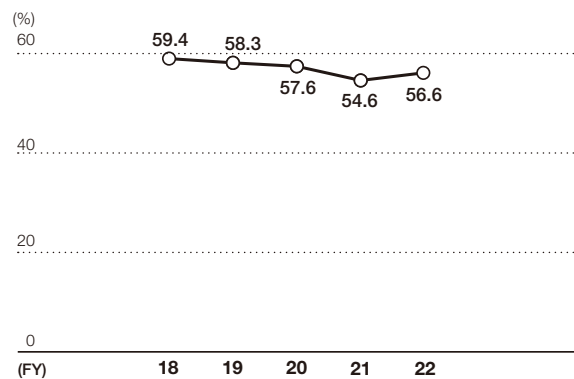
Consolidated total asset turnover



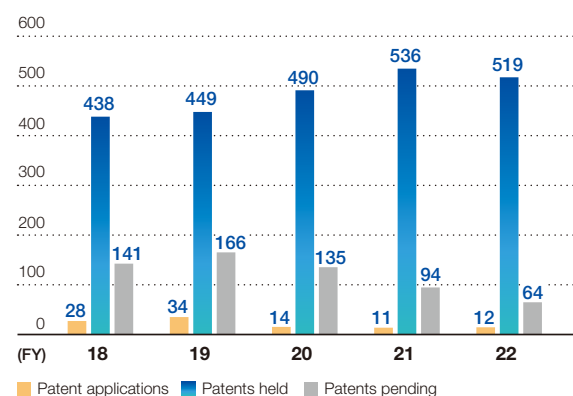
Net income per share/Net assets per share



Shareholder's equity ratio



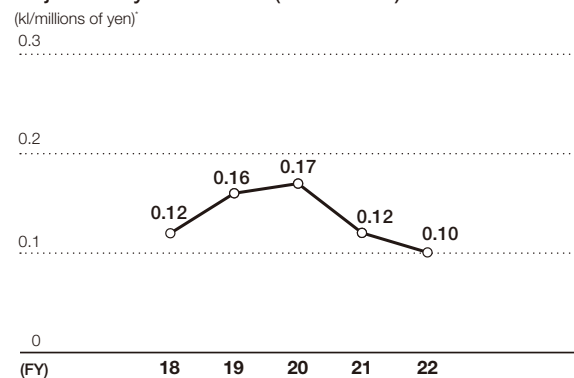
Patent-related achievements



Note:

The number of patent applications is the number of filed during the fiscal year; the number of patents held and the number of patents pending are figures as of the end of the fiscal year.

Energy consumption in Atsugi and Fuji Katsuyama Plant (basic unit)



* The figures are calculated by converting the amount of energy consumed (electricity, kerosene, and gas) into crude oil volume (kl) and dividing the figure by the production value.

Basic unit (kl/millions of yen) = crude oil equivalent of energy consumption (kl) / production value (millions of yen).

Consolidated Financial Statements (As of March 31, 2023)

Consolidated balance sheet (at March 31)

	(Unit: millions of yen)	
	2022	2023
Assets		
Current assets:	212,257	229,713
Cash and time deposits	73,100	68,312
Notes and accounts receivable – trade, and contract assets	48,432	50,634
Marketable securities	3,542	4,234
Merchandise and finished goods	22,335	28,276
Work in process	20,342	21,140
Raw materials and supplies	35,831	45,699
Other current assets	9,999	12,961
Allowance for doubtful accounts	(1,326)	(1,544)
Non-current assets	113,322	118,747
Property, plant and equipment	75,315	79,215
Buildings and structures	32,697	37,565
Machinery, equipment, and vehicles	8,947	9,570
Tools, furniture, and fixtures	4,738	5,034
Land	18,940	19,080
Lease assets	4,289	6,012
Construction in progress	5,701	1,950
Intangible assets	3,611	2,952
Others	3,611	2,952
Investments and other assets	34,395	36,580
Investment securities	25,827	27,100
Long-term loans receivable	704	620
Deferred tax assets	3,378	4,867
Retirement benefit asset	729	970
Other investments	3,939	3,163
Allowance for doubtful accounts	(183)	(141)
Total assets	325,579	348,461

Consolidated statements of cash flows (for the years ended March 31)

	(Unit: millions of yen)	
	2022	2023
Cash flow from operating activities	14,943	2,948
Cash flow from investing activities	(9,517)	(8,793)
Cash flow from financing activities	(8,172)	(340)
Effect of exchange rate changes on cash and cash equivalents	3,813	(59)
Net increase (decrease) in cash and cash equivalents	1,067	(6,245)
Cash and cash equivalents, beginning of period	74,644	75,712
Cash and cash equivalents, end of period	75,712	69,467

	(Unit: millions of yen)	
	2022	2023
Liabilities and net assets		
Current liabilities:	89,895	90,698
Notes and accounts payable	25,313	20,068
Electronically recorded obligations—operating	18,304	19,019
Current portion of long-term debt	4,650	6,707
Lease liabilities	591	932
Income taxes payable	2,544	2,080
Other current liabilities	38,492	41,890
Non-current liabilities	56,905	59,975
Bonds payable	20,000	20,000
Long-term borrowings	23,800	26,228
Long-term lease obligations	2,510	3,210
Defined benefit liabilities	6,127	6,973
Allowance for directors' and corporate auditors' retirement benefits	129	122
Retirement benefit liability	2,304	1,357
Other non-current liabilities	2,033	2,083
Total liabilities	146,801	150,674
Net assets:		
Shareholders' equity	155,716	168,681
Share capital	21,142	21,142
Capital surplus	37,074	37,056
Retained earnings	101,513	114,714
Treasury stock	(4,014)	(4,233)
Accumulated other comprehensive income	22,174	28,606
Unrealized gains on available-for-sale securities	14,174	15,160
Foreign currency translation adjustments	8,369	12,880
Remeasurements of defined benefit plans	(369)	565
Non-controlling interests	886	499
Total net assets	178,778	197,787
Total liabilities and net assets	325,579	348,461

Consolidated statements of changes in net assets (For the year ended March 31, 2023)

	Shareholders' equity				
	Share capital	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance at beginning of period	21,142	37,074	101,513	(4,014)	155,716
Restated balance	21,142	37,074	101,513	(4,014)	155,716
Changes during period	—	(17)	13,200	(219)	12,964
Change in ownership interest of parent due to transactions with non-controlling interests		(18)			(18)
Dividends of surplus			(2,872)		(2,872)
Profit (loss) attributable to owners of parent			16,073		16,073
Purchase of treasury shares				(265)	(265)
Disposal of treasury shares		1		46	47
Net changes in items other than shareholders' equity					
Balance at end of period	21,142	37,056	114,714	(4,233)	168,681

Consolidated statements of income (For the years ended March 31)

Makino Milling Machine Co., Ltd. and Consolidated Subsidiaries

For the years ended March 31, 2022 and 2023

(Unit: millions of yen)

	2022	2023
Net sales	186,591	227,985
Cost of sales	135,973	161,596
Gross profit	50,617	66,388
Selling, general and administrative expenses	39,317	48,895
Operating income	11,300	17,492
Non-operating income	3,247	3,130
Interest income	303	595
Dividend income	461	542
Rental income	234	216
Subsidy income	605	661
Foreign exchange gains	1,051	—
Other revenue	591	1,114
Non-operating expenses	273	716
Interest expense	174	220
Interest expenses on bonds	96	96
Foreign exchange losses	—	335
Other expenses	2	63
Ordinary profit	14,274	19,906
Extraordinary income	80	66
Gain on sales of property, plant, and equipment	54	66
Gain on sales of investment securities	20	—
Subsidies for employment adjustment	6	—
Extraordinary losses	50	522
Loss on disposal of property, plant, and equipment	49	499
Loss on sales of investment securities	1	—
Loss on valuation of shares of subsidiaries and associates	—	22
Income before income taxes	14,304	19,450
Income taxes	2,179	3,360
Income taxes – current	3,408	4,283
Income taxes – deferred	(1,229)	(922)
Net income	12,124	16,089
Net income attributable to non-controlling interests	81	16
Net income attributable to owners of the parent	12,042	16,073

(Unit: millions of yen)

Accumulated other comprehensive income				Non-controlling interests	Total net assets
Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Accumulated other comprehensive income		
14,174	8,369	(369)	22,174	886	178,778
14,174	8,369	(369)	22,174	886	178,778
985	4,511	935	6,432	(387)	19,009
					(18)
					(2,872)
					16,073
					(265)
					47
985	4,511	935	6,432	(387)	6,044
15,160	12,880	565	28,606	499	197,787

Corporate data

Company Name	Makino Milling Machine Co., Ltd.	
Head Office	3-19, Nakane 2-chome, Meguro-ku, Tokyo 152-8578, Japan Phone: +81-3-3717-1151	
Established	May 1937	
Paid-in capital	¥21,142 million	
Number of employees	4,692 (consolidated basis)	
Major businesses	Manufacture, sale, and maintenance of machine tools, including machining centers, NC EDMs, NC milling machines, milling machines, FMSs, CAD/CAM and other products	
Directors and Audit and Supervisory Board Members (As of June 22, 2023)	President and Representative Director	Shotaro Miyazaki
	Executive Vice President and Representative Director	Toshiyuki Nagano
	Executive Vice President and Representative Director	Tatsuaki Aiba
	Director	Haruyuki Shiraishi
	Director, External and Independent	Naofumi Masuda
	Director, External and Independent	Kodo Yamazaki
	Director, External and Independent	Kazumi Nishino
	Director, External and Independent	Kazuo Takahashi
	Full-time Audit and Supervisory Board Member	Akio Koumura
	External and Full-time Audit and Supervisory Board Member	Jinei Yamaguchi
	External and Audit and Supervisory Board Member	Jiro Nakashima

Shareholder returns

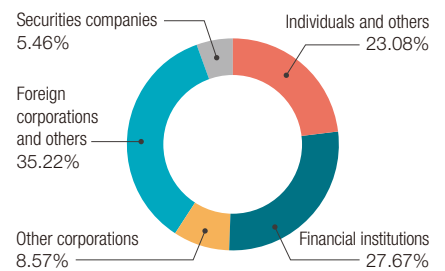
Total number of shares issued

24,893,841
(including treasury stock of 1,012,276 shares)

Number of shareholders

6,728

Composition of shareholders



Major shareholders (Top 10)

Name	Number of shares owned (Thousands)	Ownership percentage of total shares issued (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	3,246	13.59
Custody Bank of Japan, Ltd. (Trust account)	1,533	6.42
Machine Tool Engineering Foundation	893	3.74
Nomura Securities Co., Ltd.	818	3.43
OASIS JAPAN STRATEGIC FUND LTD.	750	3.14
GOLDMAN,SACHS&CO.REG	741	3.10
DEUTSCHE BANK AG FRANKFURT CC CLTOMNI 5000000	646	2.71
SSBTC CLIENT OMNIBUS ACCOUNT	547	2.29
CACEIS BANK S.A., GERMANY BRANCH-CUSTOMER ACCOUNT	521	2.18
The Nomura Trust and Banking Co., Ltd.	500	2.09

Note: The ownership percentage of total shares issued has been calculated after the deduction of treasury stock. (Rounded down less than 1,000 shares)



For inquiries, contact

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