

Fiscal Year Ended March 31, 2023
(April 1, 2022 to March 31, 2023)

Business Report





Brand Statement

For Crafting Tomorrow

The honor of supporting Japan's *monozukuri* (manufacturing) —the art of manufacturing and craftsmanship—has always been at the root of our company.

As a leading manufacturer of small-diameter carbide end mills, we strive to create valuable products that cater to the needs of our customers and the society.

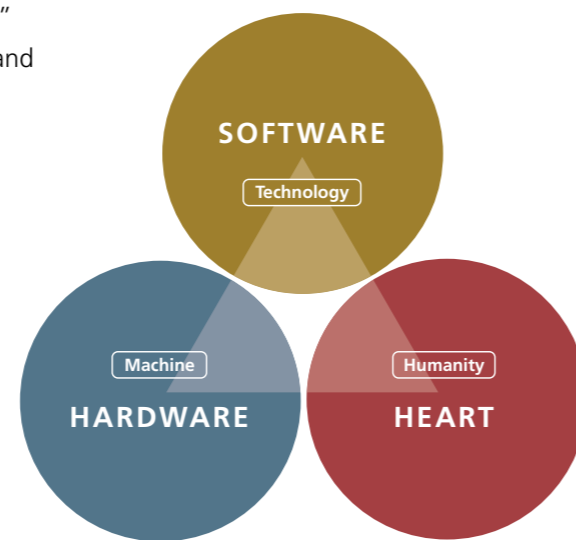
We will introduce innovative solutions by continuously pushing the limits of our own technical standards, and present pioneering skills, quality and services to the future, and to the world.

NS TOOL will continue to explore the infinite possibilities and dreams in *monozukuri*.



Management Philosophy

NS TOOL creates
 “**Software** (technology),”
 “**Hardware** (machine)” and
 “**Heart** (humanity).”
 We contribute to society
 by developing eco- and
 human-friendly products.



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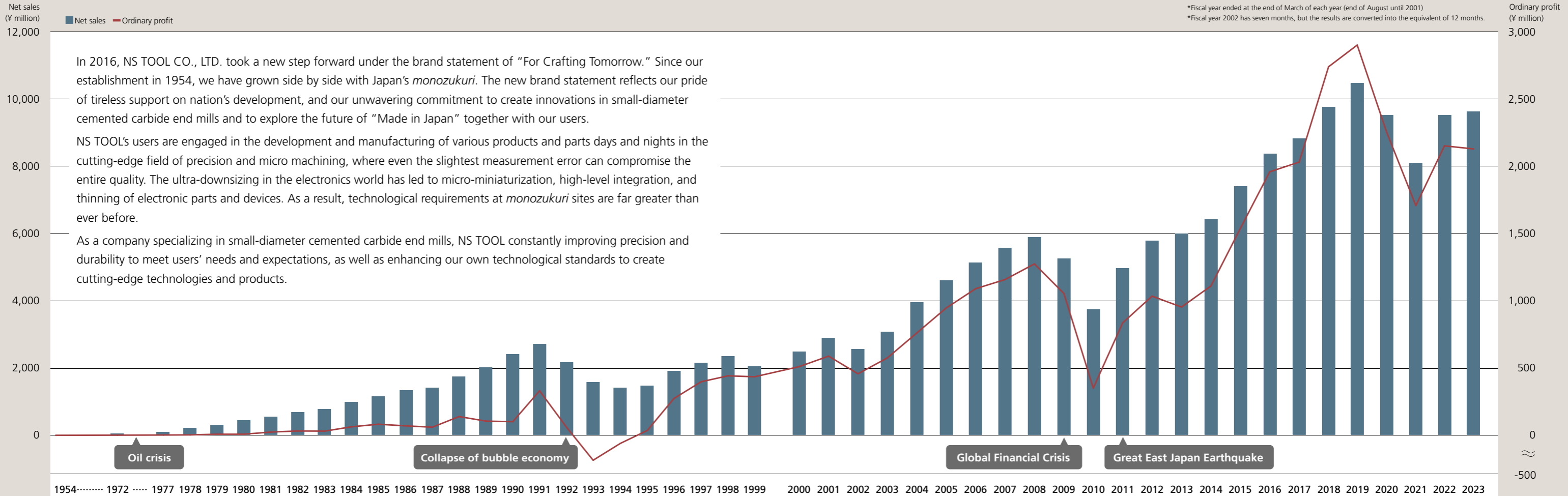
Disclaimer

Notes regarding the Company’s estimates

This report contains forward looking estimates including plans, strategies, financial performance and other statements. These estimates are based on the determination derived from the information that can be obtained currently. Please note that the actual results are supposed to be affected by various types of risks and uncertainties and, as a result, can be largely differ from these estimates.

Major Milestones of NS TOOL Group

"monozukuri" means manufacturing in Japanese.



In 2016, NS TOOL CO., LTD. took a new step forward under the brand statement of "For Crafting Tomorrow." Since our establishment in 1954, we have grown side by side with Japan's *monozukuri*. The new brand statement reflects our pride of tireless support on nation's development, and our unwavering commitment to create innovations in small-diameter cemented carbide end mills and to explore the future of "Made in Japan" together with our users.








NS TOOL's users are engaged in the development and manufacturing of various products and parts days and nights in the cutting-edge field of precision and micro machining, where even the slightest measurement error can compromise the entire quality. The ultra-downsizing in the electronics world has led to micro-miniaturization, high-level integration, and thinning of electronic parts and devices. As a result, technological requirements at *monozukuri* sites are far greater than ever before.

As a company specializing in small-diameter cemented carbide end mills, NS TOOL constantly improving precision and durability to meet users' needs and expectations, as well as enhancing our own technological standards to create cutting-edge technologies and products.

History of NS TOOL

- 1954** Establishes Nisshin Kogu Seisakusho.
- 1961** Establishes Nisshin Kogu Seisakusho L.C. in Shinagawa-ku, Tokyo.
- 1977** Starts exporting products (to Taiwan).
- 1979** Changes the organization to Nisshin Kogu Seisakusho Co., Ltd.
- 1990** Establishes a consolidated subsidiary G-Tech Co., Ltd.
- 1991** Changes the trade name to NS TOOL Co., Ltd.
- 1994** Declares specialization in small-diameter end mills.
- 1999** Invests in Sato Tool, Ltd. (Niigata Nisshin Co., Ltd.).
- 2001** Acquires ISO9001 certification.
- 2002** Makes G-Tech Co., Ltd. and Sato Tool, Ltd. (Niigata Nisshin Co., Ltd.) wholly-owned subsidiaries.
- 2004** Acquires ISO14001 certification. Lists on the JASDAQ Stock Exchange.
- 2009** Establishes NS Engineering Co., Ltd.
- 2011** Makes Makino Industry Co., Ltd. a wholly-owned subsidiary.
- 2013** Establishes NS TOOL Hong Kong Ltd.
- 2016** Reforms the corporate identity. NS Engineering Co., Ltd. takes over Niigata Nisshin Co., Ltd.
- 2017** After switching to the Second Section of the Tokyo Stock Exchange, NS TOOL was designated as a First Section stock.
- 2018** Relocates Headquarters and Tokyo Office.
- 2021** Establishes NS TOOL USA, INC.
- 2022** Transitions to the Prime Market of the Tokyo Stock Exchange.

History of development, production, and sales activities

- 1972** Launches the original "Power End Mill" with helix angle of 50 degrees. 
- 1977** Makes a full-scale entry into the mold market with a cemented carbide solid end mill.
- 1979** Constructs new Fujisawa Factory and establishes operation of three-production sites.
- 1980** Completes the first stage of construction of Sendai Factory. 
- 1989** Completes the second stage of construction of Sendai Factory. Introduces a CNC grinding machine made by Rollomatic SA (Switzerland) for the first time in Japan.
- 1993** Completes the third stage of construction of Sendai Factory. Consolidates Production Division and Development Division into Sendai Factory.
- 1994** Establishes R&D Center on the premises next to Sendai Factory.
- 1998** Launches a project to develop an original Tool Grinding Machine "TGM." Launches CBN end mills.
- 2001** Holds the first NS Private Show. Completes the first Tool Grinding Machine "TGM" developed by NS TOOL. 
- 2003** Completes the fourth stage of construction of Sendai Factory. 
- 2006** Holds the second NS Private Show.
- 2009** Establishes a new Manufacturing Center. Sendai Factory recovers from Great East Japan Earthquake in one month. 
- 2011** Completes the fifth stage of construction of Sendai Factory.
- 2016** Holds the third "NS TOOL Private Show 2020." Establishes R&D Center with All-round Isolation System structure. 
- 2020** Opens Sendai inventory center. NS Engineering Co., Ltd. starts manufacturing small-diameter end mills at its Niigata Factory. 

NS TOOL Group Network

a NS TOOL CO., LTD.
Headquarters and Tokyo Office

b NS TOOL CO., LTD.
Sendai Factory and R&D Center

g Fukuoka Office

f Osaka Office

e Nagoya Office

d Nagano Office

h NS Engineering Co., Ltd.
Headquarters and Main Factory

i NS Engineering Co., Ltd.
Niigata Factory

j Makino Industry Co., Ltd.

c Sendai Office

k NS TOOL Hong Kong Ltd.

m NS TOOL Hong Kong Ltd. Suzhou Office

n NS TOOL USA, INC.

Business lines
Sale of cutting tools, inventory center

Business lines
Development and manufacture of cutting tools, inventory centers

Business lines
Coating processing and re-grinding of cutting tools

Business lines
Manufacture of cutting tools

Business lines
Developing, manufacturing and sale of plastic molded products, mainly tool cases

k NS TOOL Hong Kong Ltd.

m NS TOOL Hong Kong Ltd. Suzhou Office

n NS TOOL USA, INC.

Business lines
Sale of cutting tools, inventory center

Business lines
Sale of cutting tools, inventory center

Value Creation Process of NS TOOL Group

"monozukuri" means manufacturing in Japanese.

— Unlock the dreams and possibilities of *monozukuri* —

In order to support the precision and micro machining technologies essential for manufacturing electronic and precision parts, which Japan's *monozukuri* is best at, our Group challenges technologies, quality and services beyond other companies' reach and has been restlessly working to create new added values.

As a group specializing in small-diameter tools, we boast the top share in Japan in the field of small-diameter cemented carbide end mills, and maintain high profit margin and a thorough debt-free management.

Resources for creating added values

For Crafting Tomorrow

NS TOOL Group (Fiscal year ended March 31, 2023)

Specialist of small-diameter end mills

Net sales **¥9.6 billion**
(Ratio of small-diameter: 77.5%)

Operating profit **¥2.1 billion**

Profit attributable to owners of parent **¥1.4 billion**

Solid financial base

Total assets **¥18.8 billion**

Shareholders' equity **¥16.9 billion**

Equity ratio **90.1 %**

Cash and deposits **¥8.4 billion**

Elite specialists of small-diameter end mills

Employees **352**
Of which, 33 development personnel

Abundant and excellent products

Material x Type x Coating = Approx. **10,000** types

Intellectual property owned

Acquired patents, etc. **55**

Awards received

Ministry of Economy, Trade and Industry
Global Niche Top Companies Selection 100 (2020)

Monozukuri Japan Conference, The Nikkan Kogyo Shimbun, Ltd.
"Super" Monozukuri Parts Award: (2011)(2012)(2014)(2015)(2016)(2019)(2020)(2021)(2022)
Received 9 times

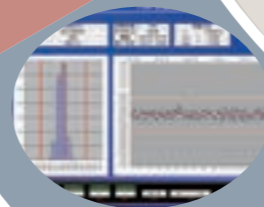
News Digest Publishing Co., Ltd.
ND Marketing Awards (2014)

Ministry of Economy, Trade and Industry, etc.
Monozukuri Japan Award: Received twice (2005)(2013)

Japan Cutting & Wear-resistant Tool Association
Environmental Special Award (2022)

Proposal-based sales and engineering support based on skills and experience

Sales

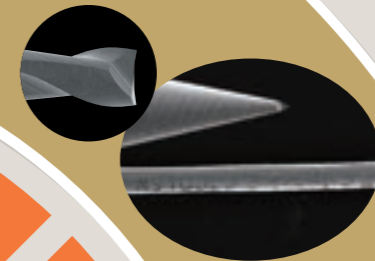


Flexible and efficient production system centered on in-house developed grinding machine "TGM"*

Production



R&D Center (All-round Isolation System)



Hair processed with our product "Micro Edge"



Development system specialized in high-precision and micro machining

Development



Long Neck Series

PCD Series



Factory building considering safety, environmental, and disaster measures

Introduction of owned media



*TGM: Tool Grinding Machine

What are end mills ?

End mills are cutting tools attached to machining center for cutting and processing metals such as steel, stainless steel, and aluminum.
 End mills are capable of a wide variety of millings, such as holes, grooves, planes, and three-dimensional curved surfaces.
 End mills are used for processing molds and parts.
 Small-diameter end mills with diameter 6mm or less, the flagship products of NS TOOL, are most suitable for precision and micro machining. Small-diameter end mills are used by over 5,000 companies from major manufacturers to small and medium sized ones.



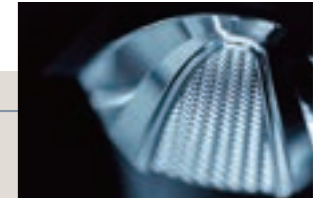
Appearance of end mills



Machining center appearance



Milling process



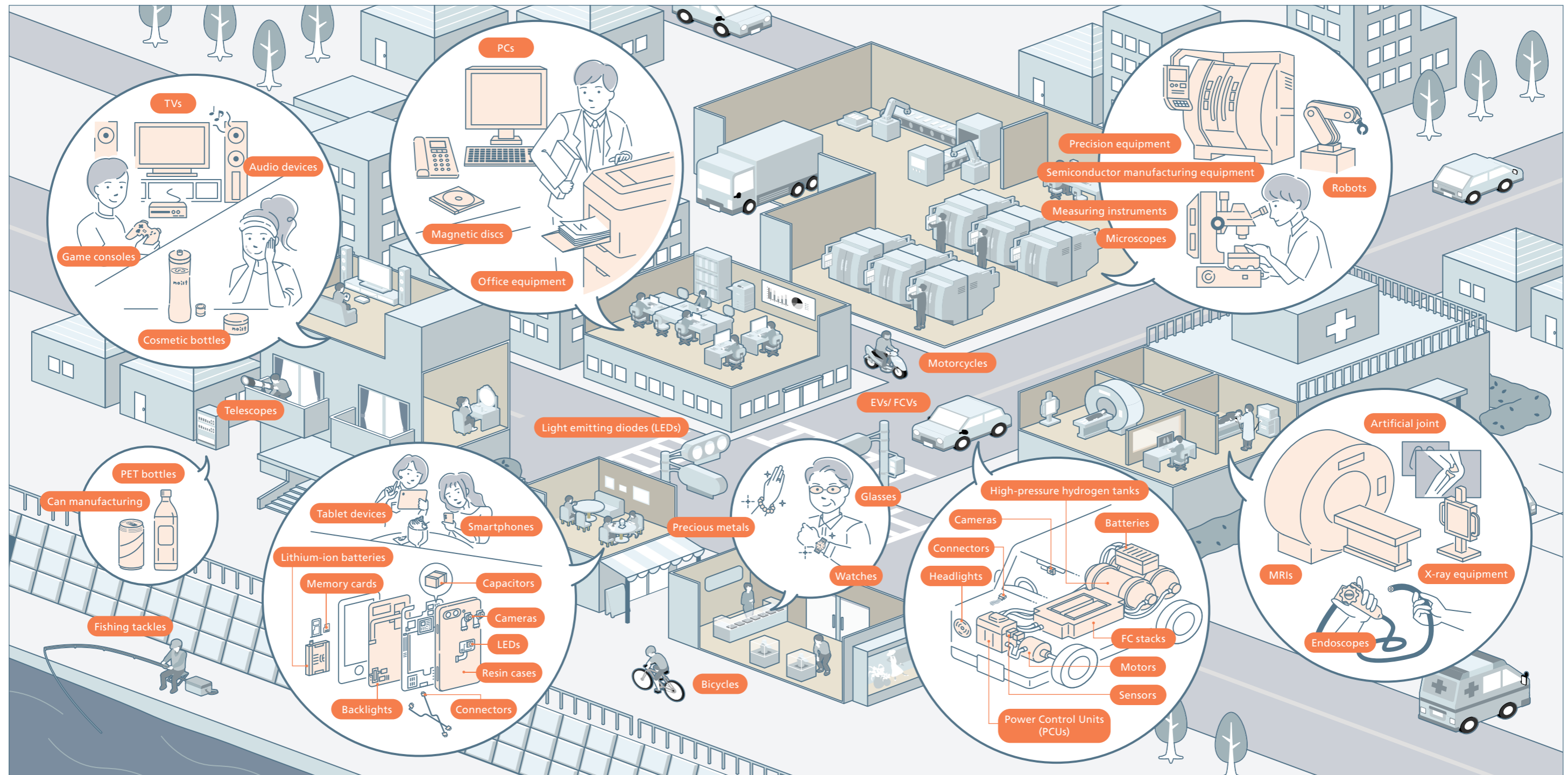
Mold machining



Parts processing

End mills are attached to machining center and milling materials.

Machining with small-diameter end mills helps produce many products such as the following:



We contribute to society as a manufacturer of
“high value-added products”
through proactively offering information
and careful support and creating
the new market with our users.



Hiroji Goto, President

Review of business activities in FY3/23

Regarding Japanese economy, economic activities gradually head toward normalization with the progressive easing of COVID-19-related movement restrictions and showed a sign of recovery, however, the future of the economy remains uncertain due to Russian invasion in Ukraine, and the depreciation of the yen caused by distinction in interest rate between Japan and U.S., etc., and an increase in energy prices and resource prices.

As for the situation of the major consumers for the products of the Company group, recovery is in delay in automotive industry, because production cuts have been prolonged than expected due to the effect of semiconductor and parts shortages. In addition, stay-at-home demand for smartphone and PCs that had been brisk, was stabilized. On the other hand, the market for semiconductor and electronic components and devices generally remained strong.

Under such business environment, the Group strived to cut costs further on the manufacturing site so as to cope with the increase in production cost caused by continued rise in the prices of resources, raw materials, and electricity. However, as we had difficulty maintaining prices solely through our own efforts, we decided to pass on some of the increased costs to our customers, and in line with trends at other companies, we issued price increases for major products starting from November orders. As a result, demand increased because of some rush demand prior to the price increases, and there was the move to capture some of the future demand.

In terms of sales, we proactively joined the physical exhibition to explore the new users, because restrictions associated with COVID-19 have been eased. In Japan, starting with “INTERMOLD2022,” the exhibition for mold machining held in April 2022 in Osaka in which mold-machining technologies gather, we participated in “INTERMOLD Nagoya” in July, and “IMTS2022,” the largest machine tool exhibition in U.S. held in Chicago for the first time in four years in September. It was the first overseas exhibition for us after COVID-19 breakout, in which we approached a wide variety of industries such as automobile, medical treatment, and spaced-related one, and proactively promoted NS TOOL USA, INC., a Group company established in U.S. in 2021. In November, we exhibited at the Japan’s largest machine tool trade fair, “JIMTOF2022,” held in person for the first time in four years.

In terms of products, “MHRSH430RSF,” a 4-Flute Long Neck Corner Radius End Mill that can process hardened steel with high accuracy cutting, and “MRBSH330,” a 3-Flute small-diameter Long Neck Ball End Mill, were launched as new products. New coating is applied to both products. They are products dedicated to precision and

micro machining for hardened steel that have increasing needs of our users. And, the line-up was improved. For example, new specifications were added to “PCDRB,” a PCD Ball End Mill for mirror finishing.

In terms of production, against the backdrop of continued rise in production costs such as raw material costs, we promoted “Orange FC Activities,” which are part of the “NS TOOL Group improvement activities that take on challenges for the future” for streamlining and cost-cutting mainly at the Sendai Factory. We also started to implement the activity to cut the costs from the new perspective such as through promoting further manufacturing internalization including rough processing of a part of raw materials. Those activities have saved the resources including energy, resulting in the FY2022 “Environmental Special Award” we received at the autumn convention of the Japan Cutting & Wear-resistant Tool Association. The Group will try to reduce the environmental burden through manufacturing eco- and human-friendly products with minimum resources.



Received FY2022 “Environmental Special Award” from the Japan Cutting & Wear-resistant Tool Association.

Business environment outlook for FY3/24 onward

It is assumed that uncertain business environment and rise in production costs continue. However, we expect that demand for our products and the performance improve from the second half as production of automotive industry recovers. Nevertheless, we try to create and expand the precision and micro machining market without expressing optimism.

From the mid- to long-term perspective, there is expectation of an increase in demand for precision parts in development of products in the fields of automobile, electronics, and medical treatment due to automation of automobiles, conversion to EV and FCV, acceleration of response to 5G communication, and IoT market supported by it. We have not changed the idea that focusing on support for our users who aim for creation and expansion of the precision and micro machining market would lead to expansion of the market of our products.

Top Message

We not only provide tools but also participate from the initial stages of product development of our users to give advice on necessary tools and the method of processing them. We ask our users to visit the R&D Center to make prototypes and provide support such as by showing how we actually use not only tools but also machines. This is how we promote our products.

Making prototypes is important for developing new products. When users do it, they need to change the tool according to the materials. Or, for example, new tools are required for processing if non-conventional precise molds are to be made. Development, production, and sales departments work together and make business investments such as R&D investment so that our users can continue to be provided high value-added products that would lead to the business growth.

The Group puts “distinction” at the center of the business strategies. We focus on precision and micro machining centered on high value-added products, which are different from other companies, mainly small-diameter end mills. Instead of being involved in the low-price competition in the field of general-purpose goods, we maintain appropriate prices while exploring the market with our users to lead the field of precision and micro machining.

In FY3/24, in which gradually demand recovery due to normalization of economic activities is expected in the industry related to automotive, semiconductor, and electronic parts, consolidated net sales are forecast to increase by 2.2% yoy to ¥9.87 billion due to proactive sales activities, launch of new products, etc. In the meantime, consolidated ordinary profit is forecast to decrease by 14.2% yoy to ¥1.83 billion, incorporating continued rise in material prices, electricity costs, etc., as well as wage increase.

Looking beyond the major change in business environment

In the past three years, a wide variety of changes came to the surface all at once, and globally such as COVID-19, a wave of conversion to EVs, difficulty in procurement of parts, energy price increase, etc. The Group’s performance was affected, too. However, even in such an environment, the Group did not reduce any of the business resources, especially human resources, which are required for sustainable growth, and survived this crisis. We expect that the mid- to long-term growth trend of the precision and micro machining market that surrounds the Group’s business does not change, and assume that the Group can make most of its value through taking immediate measures including the start of full production when the market goes back to normal.

Looking at turning point in which the business activity is normalized, what we want to make sure in FY3/24 is to contemplate and foster the strong points of the Group. That is, “getting back to the basics.” Our strength is that we list 10,000 items of small-diameter end mills as standard products in our catalog and have a large inventory. This is how we select products suitable for our users from the standard goods and sell them without delay at the time of proposal-based sales activity. Against the backdrop of the huge environmental changes over the past three years, I am reflecting on the fact that this important basic axis may have shifted. Theme of FY3/24 is to recognize the strength of the Company again and further develop it.

At the same time, we would like to enhance the corporate branding initiatives. To summarize our users’ recognition of our “distinction,” it turned out that we are recognized as the company that provides products with a

high added value, that is, provision of the best manufacturing that uses the best small-diameter end mills. How can we make not only our existing users but also potential users understand the “distinction”?

To this end, we need to change the way we implement the sales activities. For example, we try to have recognize our brand through promoting the “distinction” of our products at the exhibition venue, which will eventually lead to the product sales. This is how we strengthen the sales activities. As part of the initiatives, we launched the owned media in May 2023. This will steadily increase fans of the Group and link to the PR activities.

As I mentioned above, we promote development of the mechanism to implement the cycle where products with high customer satisfaction are developed through implementing Group-wide proactive PR/information-transmitting activities, having persons in charge of sales focus on the support for our users, and providing feedback on their needs.

Creation and provision “high value-added products” that support sustainability

“High value-added products” for the Group are “eco- and human-friendly products” manufactured with minimum resources and energy, that are, high-performance unique products. Small-diameter end mills, the mainstay products of the Group, are produced with minimum materials and provided through high-performance manufacturing. The Group’s business itself is manufacturing that is eco- and human-friendly, and such manufacturing constitutes a source of social contribution by our Group. This is the way

of thinking that has not changed.

Sustainability of the Group is realized if each division of the Group makes full-scale efforts for the creation and provision of the high value-added products in the daily business activities. We have obtained ISO9001 (quality management system) certification and ISO14001 (environmental management system) certification. In compliance with ISO standards, we aim to accomplish the missions for “creation and provision the high value-added products” that are set by each division and establish a virtuous cycle of production development to create more high value-added products that are provided to the society.

I call FY3/24 “a year of recovery from COVID-19.” I take pride in myself that the Group secured the business assets in the past three years in which business environment was harsh. It is expected that demand for small-diameter end mills continue to grow globally. Together with our users, we will pay attention to the turning point. I would like to ask all of our stakeholders for their continued support for our Group, which aims to create the new market with users.

Introduction of owned media

Just like our passion for end mills, there are many people involved in manufacturing who have attitude of artisan. We launched an owned media site “For Crafting “FUTURE”,” which introduces the topics that we want them to feel “I understand,” “I agree,” “It was interesting,” and “It helped me” every week. Through this site, one of activities for increasing the fans of the Group, we want those people with passion to learn more about NS TOOL.



Summary of financial results for FY3/23 / financial forecasts for FY3/24

| Unit: ¥ million | FY3/22 Actual | FY3/23 Actual | YoY Changes | FY3/24 Forecasts | YoY Changes |
|---|---------------|---------------|-------------|------------------|-------------|
| Net sales | 9,524 | 9,656 | +1.4% | 9,870 | +2.2% |
| Operating profit | 2,111 | 2,108 | -0.1% | 1,820 | -13.7% |
| Ordinary profit | 2,156 | 2,131 | -1.2% | 1,830 | -14.2% |
| Profit attributable to owners of parent | 1,522 | 1,475 | -3.1% | 1,220 | -17.3% |
| R&D expenses | 428 | 422 | -1.3% | — | — |
| Capital investment | 659 | 686 | +4.1% | 1,037 | +51.1% |
| Depreciation | 692 | 669 | -3.2% | 714 | +6.6% |
| EPS | ¥60.89 | ¥59.16 | -2.8% | ¥48.88 | -17.4% |
| DPS | ¥22.50 | ¥22.50 | — | ¥25.00 | +11.1% |
| Dividend payout ratio | 37.0% | 38.0% | — | 51.1% | — |

We pursue
“distinction” with
“manufacturing
and human
development”
initiatives and
“five good things”



Takashi Goto

Senior Executive Vice President, in charge of production/development
NS TOOL CO., LTD.

**Our thoughts in
“Manufacturing Action Guidelines”**

Forty years have passed since I joined the Company. And have told the basics of manufacturing using various words. Looking back, I realized that I have used different words, but kept conveying the same message. So, we developed “Manufacturing Action Guidelines” in October 2021, with the aim of thoroughly conveying the message with shared words and making the message take root for the future. This is, “providing stable products with high performance and uniformed!” The words are the basic policies for manufacturing, which have been accumulated since the establishment of the Company up until today. To realize them, we incorporated what we have conveyed into the following four guidelines.

First guideline “1. Thorough implementation of ABC of quality and safety!” means sticking to the basics is essential to realize better products. “2. Challenge the ultimate manufacturing!” indicates the challenge to “zero tolerance,” which means manufacturing the product with greater accuracy than what is specified on the drawing. To realize it, “3. Manufacturing that puts importance on invisible part!” is essential. We think passion with invisible part of the product is important. And, setting the proper environment of manufacturing such as through cleaning production facilities and performing maintenance are also of importance. Relentless pursuit of improvement is indispensable on the manufacturing site. This idea is incorporated into the last guideline “4. Promotion of Orange FC Activities!” In other words, the improvement activities in small groups that the Group is trying for the future. The Activities achieved cost cut and quality improvement, and start to take root as upskilling activities of manufacturing.

Initiatives for “manufacturing and human development”

A training program for education of new employees working on site, which is called “Ishikawa-training school” (the name is derived from the person in charge of education), has taken shape. We try to educate human resources according to the original training curriculum. New employees attend the intensive training program at “Ishikawa-training school” for the six months after joining the company. Then they are assigned to the manufacturing site. Thanks to this program, they play active roles right after the assignment. We continue to aim for improving the ability and streamlining

the program through shortening the training period and expanding and deepening the training content.

The time secured by the streamlining is allocated to building the mechanism that enables employees to work with much time to spare. This is an initiative to achieve the goals with 80% power instead of 100%. It is because we think aggregation of facilities leads to aggregation of labor, which will eventually streamline the entire process. The Company internalized the processes from maintenance to engineering. Therefore, know-how concerning the troubles are accumulated, which enables flexible production system suitable to the circumstance of the time.

The activity helps reduce electricity and fuel expenses. In addition, we can immediately start production facilities and operate full production when the new order is placed. Resulting from the widespread stance of making spare time, think by oneself, and solve the problem by oneself or with the team based on the human development, various changes have been made. Against the backdrop of increasing materials costs, the changes have started to make an impact in a positive manner. For example, cost reduction was realized by manufacturing internalization of pre-processing of materials.

Competing on “distinction” instead of “difference”

I was once been told by an acquaintance who has supported me for a while “NS TOOL has competed on ‘distinction’ instead of ‘difference’.” As I looked back after being told such words, I was convinced that we have, as it turned out, pursued “distinction.” For example, price competition with competitors is “difference,” and competition on what the competitors does not have is “distinction.”


“Difference” is a slight gap, but “distinction” is a great gap.

Currently, we strengthen information transmission to convey the Group’s “distinction.” Among the initiatives, the entire processes, from shooting to editing, of the videos posted on YouTube are implemented internally. And the employees who understand the “distinction” are in charge of them. Through many contents, such as the videos focus on generating interest in end mills and improving the awareness, and those appealing the Group’s technologies, we enhance the initiatives to help many people understand the Group’s “distinction.” For the future, we plan to disclose the information at the time of presenting new products as an attempt to virtually introduce the products and explain the functions.

At the product development site, through the online interview with the user engineers, we hold the technology exchange meeting to explain our products and learn the needs of people working on the manufacturing site. In the meeting, each other engineers exchange opinions without the presence of sales people, which promotes the users’ understanding of NS TOOL and leads to exploration of the issues and needs of the users. We would like to lead the various findings from the meeting by each other engineers to the product development.

Official YouTube channel

 / NS TOOL official international

 For the information transmission via website, please refer to page 47 “Introduction of Web Contents”



“Five good things” leads to the good cycle of “distinction”

In Japan, there is an idea called “good on three sides,” a saying of Omi business people, which means “good for sellers, good for customers, and good for society.” Recently, I interpreted the words inside me: “things good for customers, things good for suppliers, things good for employees, things good for the Group, and things good for society.” I would like to be engaged in the business aiming for those “five good things.”

Considering the technologies and businesses of the next generation, it is not realistic to do everything in-house. I think alliance and partnership will become more and more important. However, it is difficult to create our “distinction” without being connected to the partner who has the same sense understanding the “distinction.”

Being aware of “five good things” will naturally lead to the initiatives for SDGs and sustainability management. We will try to further improve the way of providing high-performance products that are stable and uniformed through generating the virtuous circle of the “distinction” through pursuing our “distinction” with sense of values of “five good things.”

The history of manufacturing supporting the “now” of NS TOOL

| | | |
|-------|------|--|
| 1970s | 1972 | <ul style="list-style-type: none"> Installs NC machinery made by U.S. Unison Corporation for the first time in Japan. Enters into mold industry with “Power End Mill,” the first in-house brand end mill with unequal spacing 3-flute using high-speed steel. → “Nisshin of Power End Mills” takes root. |
| 1980s | 1982 | <ul style="list-style-type: none"> Launches “Cemented Carbide Solid End Mill Power End Mill.” |
| | 1985 | <ul style="list-style-type: none"> Enters into the automotive mold industry. Installs CNC-based universal tool grinding machine manufactured by U.S. Hoffman Group, which was used in the U.S. aircraft industry, for the first time in Japan. |
| | 1986 | <ul style="list-style-type: none"> Installs CNC-based universal tool grinding machine manufactured by German WALTER. Launches “NHR-2 carbide solid deep rib end mill” for the industry-first rib grooves milling for plastic injection molds. |
| 1990s | 1994 | <ul style="list-style-type: none"> Declaration of specialization in small-diameter tools. (NS TOOL defines “small-diameter” as the end mill with diameters 6mm or less.) Installs CNC-grinding machine manufactured by Rollomatic SA, a major Swiss manufacturer of small-diameter cemented carbide end mills, for the first time in Japan. |
| | 1996 | <ul style="list-style-type: none"> Installs “MASAMUNE,” an original CNC machine for manufacturing small-diameter cemented carbide end mills. |
| | 1997 | <ul style="list-style-type: none"> Launches cemented carbide end mills “MUGEN COATING Series.” (Original coating with excellent wear resistance and lubricity using TiAlN coating.) |
| | 2003 | <ul style="list-style-type: none"> Terminates production of high-speed steel end mill “Power End Mill.” Launches “CBN Super Finish Ball End Mill.” (Standardizing the small-diameter end mills using cBN for high-precision mold for the first time in the world.) Launches “MUGEN COATING Power “Z” end mill.” (Enabling to process from plunging to grooving without stepping) |
| 2000s | 2005 | <ul style="list-style-type: none"> Launches a tool for super micro milling “Micro Edge.” (Standardizing up to φ 0.01 with the square end mill for the first time in the world.) |
| | 2006 | <ul style="list-style-type: none"> Develops in-house Tool Grinding Machine “TGM.” (CNC tool grinding machine for mass production of micro tools automates tool measurement and transfer, enabling unmanned operation.) |
| | 2007 | <ul style="list-style-type: none"> Starts in-house coating production, industry’s first in-house production of product storage cases, and re-grinding business for CBN small-diameter end mills. Launches “MUGEN COATING PREMIUM 2-Flute Ball End Mill for Hardened Steel.” (Upgrade MUGEN COATING, dramatically increasing tool life even in direct milling of high hardness materials.) |
| | 2008 | <ul style="list-style-type: none"> Launches “Micro Drill Series.” (Standardizing up to φ 0.01 with the drill for the first time in the world.) |
| | 2009 | <ul style="list-style-type: none"> Establishes a new Manufacturing Center. (Currently: NS Engineering Co., Ltd. Headquarters and Main Factory.) |
| 2010s | 2012 | <ul style="list-style-type: none"> Launches “NS-MicroCAM.” (CAD/CAM system specialized for precision and micro machining developed by a tool manufacturer.) |
| | 2013 | <ul style="list-style-type: none"> Launches “PCD Ball End Mill.” (For mirror-like finished surface of hardened steel materials.) |
| | 2018 | <ul style="list-style-type: none"> Launches “Long Neck Ball End Mill for Copper Electrodes.” (Adopting coating and edge profile specialized for copper electrodes. By milling with less burr, ideal for copper electrodes and copper-tungsten machining.) |
| | 2019 | <ul style="list-style-type: none"> Launches “High Efficient “Z” End Mill Series.” (By adopting unique design, enabling high-efficiency machining exclusively for stainless steel and carbon steel materials.) |
| 2020s | 2020 | <ul style="list-style-type: none"> Completes Sendai Factory R&D Center. Launches “MUGEN COATING PREMIUM Plus.” (By improving “MUGEN COATING PREMIUM” to multilayer coating, enabling high hardness steel machining up to 70HRC.) Launches “CBN 4-Flute Radius End Mill.” (Adopting a new edge profile that reduces milling resistance, improving machining accuracy and speed.) |
| | 2021 | <ul style="list-style-type: none"> Launches “Ball End Mill for 5-Axis Machining.” Launches “MUGEN COATING PREMIUM Plus 3-Flute Long Neck End Mill.” (Enabling high cutting and delivering.) |
| | 2022 | <ul style="list-style-type: none"> Launches “MUGEN COATING PREMIUM Plus Long Neck Radius End Mill.” (Realizing mirror-like finish on the bottom surface.) Launches “MUGEN COATING PREMIUM Plus Square End Mill.” (Increasing the product tool life with the high hardened steel up to 70HRC.) Expands the specifications of “PCD Ball End Mill.” (Adding R1.5-3 to the lineup.) |

• Manufacturing infrastructure-related • Product development-related










Putting “Manufacturing Action Guidelines” in practice

NS TOOL Manufacturing Action Guidelines
Provide high performance products with stable and uniformed!

- 1 Thorough implementation of ABC of quality and safety!**
 (ABC in English: Do not sniff the ordinary processes but pay careful attention to them.)
 A Accomplishing the basics B without Belittling C Conduct with proper diligence
- 2 Challenge the ultimate manufacturing!**
- 3 Manufacturing that puts importance on invisible part!**
- 4 Promotion of Orange FC Activities*!**

*NS TOOL Group improvement activities that take on challenges for the future

The “NS TOOL Manufacturing Action Guidelines” formulated on October 1, 2021. We interviewed nine young leaders (managers) who are in charge of manufacturing site of NS TOOL. The members’ responsible areas in the manufacturing site are as follows.

| No. | Name | Department | Responsible area |
|-----|---|-----------------------|--|
| 1 |  Sei Saito | Production Department | Manufacturing Section-2 Production line |
| 2 |  Yoshihisa Ono | | Manufacturing Section-3 Production line |
| 3 |  Yosuke Ito | | Manufacturing Section-4 Production line |
| 4 |  Ryugo Abe | | Equipment Engineering Section Facility maintenance, human resources development |
| 5 |  Naoyuki Kaneko | | Quality Control Section Quality control |
| 6 |  Hiroshi Nozawa | | Factory Control Section Production management, system management, general affairs |
| 7 |  Takamasa Endo | R&D Department | Design Development Section Product planning, product design |
| 8 |  Takeshi Watanabe | | New Business Section Basic research, product planning |
| 9 |  Mitsunori Takahashi | | Production Technology Section Streamlining of production |

1



Sei Saito
 Manager, Manufacturing Section-2
 Manufacturing Group,
 Production Department

Joined NS TOOL in 2001. After moving from the Quality Control Section to manufacturing, production technology, and development, returned to manufacturing again. Manager of Manufacturing Section-2 since April 2019.


Manufacturing Section-2, which handles end mill production, sets the goal of realizing zero tolerance to manufacture the high-precision products in a stable manner. So, we stay conscious of “2. Challenge the ultimate manufacturing!” in “Manufacturing Action Guidelines.”

It isn't able to put the high-precision manufacturing into practice if only following the conventional procedures. There is necessary to change something, which is risky in some cases. Although our corporate culture encourages the idea of “If there is not something for need, create it,” development of “Manufacturing Action Guidelines” helped the spirit of challenging the changes take root on the manufacturing site.

Trying many things and gaining experience, including failures, also leads to human development. Even if fail after trying, the experience will lead to success, which I think is a “nice try.” And, sharing the outcome contributes to accumulation of knowledge of us. We implement Orange FC Activities proactively to pursue the idea.

With the aim of providing high-precision products in a stable manner, we will manufacture unbeatable end mills while continuing the challenge of realizing zero tolerance.

2



Yoshihisa Ono
 Manager, Manufacturing Section-3
 Manufacturing Group,
 Production Department

Joined NS TOOL in 2004. Manager of Manufacturing Section-3, which was established in April 2022, after serving as Sub Leader on manufacturing site and belonging to Equipment Engineering Section.


Manufacturing Section-3 is responsible for mass production of high-performance and high-quality end mills. And, apart from Orange FC Activities, we are trying to improve machine, equipment, and production efficiency for the future after five, and ten years ahead. When trying to produce a product that has not existed before, we need to think out of the box. “Manufacturing Action Guidelines” encourage such a challenging spirit and start to take root onsite.

Our products are used for precision and micro machining, and are different from products that are made just by following the set procedures. Human senses and findings are important in our manufacturing. To this end, in terms of

human development, I consciously try to develop the ability to notice something and encourage challenges. I would like to pass the spirit to my junior colleagues, because the challenges of the superior colleagues support what I do now.

Automation for saving labor is important. However, we call it “automation driven by people,” which means people matter. We will continue to engage in manufacturing that adds high value with human sense.

3



Yosuke Ito
 Manager, Manufacturing Section-4
 Manufacturing Group,
 Production Department

Joined NS TOOL in 2001. Manager of Production Technology Section, after engaging in production in Production Department and being transferred to Production Technology Section. Appointed as Manager of Manufacturing Section-4 in April 2022.


In a way, Manufacturing Section-4's end mill production is a practice of “2. Challenge the ultimate manufacturing!” in “Manufacturing Action Guidelines.” After preparing the prototype, we identify problems as part of Orange FC Activities, and discuss how to resolve them. Prototypes are made again and again. Our Section is in charge of the processes from making the estimate to shipping the product. Delivery date must be observed. And there are machine-related troubles. So, we need to work with a sense of tension.

In the meantime, the words of praise from users at the time of delivery please us a lot. We go through growing pains.

However, I feel the fact that our users think “NS TOOL will help us at anytime” leads to their trust in us. We try to do what we do so that the trust in us leads to a repeat purchase.

Currently, Manufacturing Section-4 tries to encourage the member to be conscious of cost. Cost is an important gauge for measuring the effect of improvements. So, we try to enhance the ability of the members through promoting the initiative together with Orange FC Activities so that they can work paying attention to the cost.

4



Ryugo Abe
 Manager, Equipment Engineering Section
 Production Control Group,
 Production Department

Joined NS TOOL in 1997. Manager of Manufacturing Section-3 (current Equipment Engineering Section) in April 2017, after belonging to manufacturing, production technology, and development departments.

Equipment Engineering Section is responsible for maintenance and securing of the equipments in the factory and human resources development. “Manufacturing Action Guidelines” were developed. I think establishing the basics of manufacturing is important. When I joined the company, manufacturing, rather than establishment of basics, was focused. I needed to learn production technology of end mills as soon as possible even though I did not know about the basics.


However, when there is running into an obstacle while doing the work or a need to cope with new improvements, it isn't able to solve those problems only with manufacturing. As a department that is in charge of education, we focus on

having employees learn about the basics of manufacturing through employee training programs.

Establishment of basics of manufacturing enables Orange FC Activities. Equipment Engineering Section implements the activity specialized in reduction of power consumption. A half of our power is consumed because of the use of facilities. So, we are looking for the way to efficiently use the equipments.

We, as an indirect department, try to contribute to development of the structure to provide the high-quality products in a stable manner so that people say “If there is an issue related to equipments, ask Equipment Engineering Section. If it is an issue related to education, ask Equipment Engineering Section, too.”

5



Naoyuki Kaneko
 Manager, Quality Control Section
 Production Control Group,
 Production Department

Joined NS TOOL in 1989. Manager of Quality Control Section since April 2018, after being engaged in manufacturing, sales of tools in a Group company, and transferred to Quality Control Section.


In Quality Control Section, we mainly implement the activity to establish and enhance the quality-control structure and reduce inferior products in order to secure the quality of us. As specified in “Manufacturing Action Guidelines,” products that are stable and uniformed and with high performance are our “distinction.” Therefore, considering how we can realize such products at a high level, we engage in everyday work.

In Quality Control Section, we patrol each process of the manufacturing site once a week to check the product, size, and whether everyone works in compliance with rules. I feel the way of thinking of workers on the manufacturing site has changed. “Within tolerance” is not enough. If we make 100

pieces, we need to make 100 pieces that are exactly the same. I think “Manufacturing Action Guidelines” have an impact on such awareness that is taking root.

In FY3/23, we promoted the activity to reduce defects and tried to reduce cost especially by reducing the coating defects. In the future, while adopting automation of operations, we would like to further enhance the quality-control structure.

6



Hiroshi Nozawa
 Manager, Factory Control Section
 Production Control Group,
 Production Department

After joining NS TOOL in 2002, engaging in the manufacturing site for seventeen years, and being transferred to Quality Control Section in 2019. Manager of Factory Control Section since April 2022.

Works of Factory Control Section, which cover a wide range of content, are roughly divided into two categories, production/system management and general affairs. Factory Control Section focuses on Orange FC Activities. Small groups are organized in the Section. Each group sets an improvement theme and the target, and take action according to the plan. In FY3/23, we dealt with “cost cut by internalization of job-search site” and “cost cut by automatically distributing the list of payment plan with RPA.”

In “Manufacturing Action Guidelines,” we convey messages focusing on “3. Manufacturing that puts importance on

invisible part!” In our manufacturing site, members have a habit of not cutting corners. For example, they clean machines paying attention to invisible details. Those efforts have become foundation of the mind-boggling adjustment works that pursue the precision of 0.001 mm. Factory Control Section is an indirect section that does not directly produce products. However, I always tell the members that we, who engage in production/system management, and general affairs, work behind the scene and play an important role that supports “invisible part” of manufacturing. I feel the team has been invigorated and grown in the past year.



7 **Takamasa Endo**
 Manager, Design Development Section
 R&D Group, R&D Department

After joining NS TOOL in 1999 and being involved in development for twenty-four years. Manager of Design Development Section since April 2022.

In R&D Department, we mainly work on prototype and evaluation of new product tools. Among all the sections of R&D Department, Design Development Section is engaged in prototype of new tools and investigation in the patent. In addition, we are involved in production of samples tools that are requested by our users at technology exchange meetings. Relationship of trust is developed through resolving the technical problems of the users together with them. We turn the feedback on the issue to development.

As mentioned in "Manufacturing Action Guidelines," we aim for high-performance product development. However, we also need to further improve the manufacturing process so

that production becomes stable and uniformed. We are trying to achieve the goals while seeking the best selection and combination of the three most important elements; material, tool design, and coating, which suit the purpose of use.

PDCA for prototype evaluation is important to prevent a do-over of development. In addition to checking abrasion of the used tool and thorough observation of the processed item that was cut, it is needed to logically think and analyze what is behind the phenomenon that actually happened. According to my understanding, this is "1. Thorough implementation of ABC of quality and safety!" in our works.



8 **Takeshi Watanabe**
 Manager, New Business Section
 R&D Group, R&D Department

After joining NS TOOL and being assigned to R&D Department in 2000, and acquired a PhD in engineering specialized in machine processing tools with the Company's system. Manager of New Business Section since April 2022.

New Business Section is specialized in new technologies. For example, we are engaged in research considering the future tool production method that is difficult to realize with current tool cutting technologies. Recently, we deal with tools as well as YouTube video production under the theme of precision and micro machining. In addition, we sell "NS-MicroCAM," original CAD/CAM dedicated to precision and micro machining, and propose our users the processing technologies using it.

Regarding "Manufacturing Action Guidelines," we make sure to greet each other, which is the most basic of "1. Thorough implementation of ABC of quality and safety!" We

regard it as the first step of manufacturing and human development. We work hard on "2. Challenge the ultimate manufacturing!" as a mission.

Development of "Manufacturing Action Guidelines" helped everyone understand the idea with shared words. I feel a sense of connection through focusing on the same goals. I would like to take on new challenges while respecting each other, improving ourselves by learning from others, and deepening intersectional coordination.



9 **Mitsunori Takahashi**
 Manager, Production Technology Section
 R&D Department

Joined NS TOOL in 2005. After engaging in end mill production and being transferred to Production Technology Section. Manager of Production Technology Section since April 2022.

Production Technology Section develops facilities for automation. Our work itself is a kind of Orange FC Activities, because we engage in providing technical support and making proposals for the matters that concern the production site and improving the situation with the people on site.

Production Technology Section is responsible for development, creative work in other words, because we make what does not exist there. Therefore, value is generated if we think by ourselves to come up with an idea and create an effect by making improvements. To this end, in human development, we place importance on "thinking and action," that is, taking action after thinking by ourselves, and "interest,"

which is the source of "thinking and action."

And, to produce end mills efficiently, automated facilities are indispensable. New technologies and methods need to be adopted in advance if we want to realize more stable production without variation and thorough cost cut. This is why we would like to proactively promote collection of information including that of other industries. For automated facilities, too, we will show the "distinction" and work on development of our unique facilities.

Repeating ordinary works everyday and passing down manufacturing of NS TOOL to the next generation

At "Ishikawa-training school," new employees learn about manufacturing of NS TOOL for six months after joining the Company. We interviewed three lecturers on the history since establishment and current status of the human resources education organization that develop new employees into industry-ready employees.



Takeshi Ito Chief of the same section
Kunio Ishikawa Sub Leader Equipment Engineering Section Production Department
Hiroki Abe Assistant Chief of the same section

Lecturer members of "Ishikawa-training school"

Ishikawa Currently, three of us belong to Education Team of Equipment Engineering Section to operate "Ishikawa-training school." Since joining NS TOOL, I have worked at Sendai Factory for twenty-seven years. Throughout my career, I have belonged to Manufacturing Group.

Ito I have belonged to Manufacturing Group for twenty-eight years since I joined NS TOOL. Starting with manual-handling process of general-purpose grinding machine, I have engaged in the processes of NC tool grinding machine (straight through processing) that process every parts with one clamping.

Abe I joined NS TOOL twenty-two years ago. I have been in charge of various processes in Manufacturing Group. Four years have passed since I joined the operation of "Ishikawa-training school." I am the last member.

which lead to improvements in educational materials and lecture content.

Ito Based on the educational materials prepared by Ishikawa, we started the educational program for new employees, focusing on three processes, mainly straight through processing.

Abe I tried to enhance the educational materials through adding the knowledge necessary for machine processing, such as NC processing (machine processing by numerical control) and mechanism of grinding stone.

Activity and achievement of "Ishikawa-training school"

Ishikawa We try to develop the ability of new employees in six months so that they become industry-ready employees. However, it would not be able to realize the training program all by myself. In addition to the fact that three members gathered, I am grateful that the Company prepared us the four in-house developed units of Tool Grinding Machine "TGM" for educational purpose. "Ishikawa-training school" has become as it is now because of those factors.

After the educational period, we hold a debrief session for the new employees where they make presentation to officers and supervisors. They talk about what they gained and the troubles they went through during the training program, and their future plan. Listening to their presentation, we, too, identify the achievements and things we need to improve and reflect them in the next program and teaching method. I think it is an opportunity for everyone to be grown together.

Ito I give lecture to new employees every year, but always reflect on myself and think "maybe the way I teach was not good." I repeat improving what was wrong for the next year. It

How "Ishikawa-training school" was established

Ishikawa In our times, we have been involved in various types of processing as multi-skilled workers. In 2016 Vice President Goto said an organization for human resources education was needed and asked if I was interested in establishing one taking advantage of my experience. Back then, I did not have knowledge of all the processes or was excel in machine operation. Therefore, I asked him for three months to be prepared and studied procession which I had no experience through visiting other factories. While consulting with my superior and senior colleagues, I set up the introductory education by fumbling around. After that, Ito and Abe, who have a wide range of knowledge and experience, joined us,

is our job to pursue how to make the new employees understand. I am pleased when seeing employees who are assigned to the manufacturing site after completing the "Ishikawa-training school" programs enjoy doing their works.

Abe According to the data showing how the employees assigned to the manufacturing site after completing the "Ishikawa-training school" program contribute to production, a certain results are confirmed, though falling a bit short of their senior colleagues. I try to visit the sites and ask whether they are troubled or there are anything that are different from what they learned, and feed back to "Ishikawa-training school."

Positioning of "Manufacturing Action Guidelines" at "Ishikawa-training school"

Ishikawa What I give utmost importance when providing education is "1. ABC of quality and safety (Without belittling accomplishing the basics but conduct with proper diligence)" in the Guidelines. I teach "what is accomplishing the basics" to new employees. And, since the knowledge alone does not lead to practice, we need to have them do the "accomplishing the basics" at the unconscious level. That is, they must incorporate the idea into everyday action. At "Ishikawa-training school," we tell the new employees to repeat accomplishing the basics everyday.

Abe It is thorough repetition starting with greeting and reply. If you cannot act naturally, it means you did not go through thorough repetition.

Ito According to our understanding, "Ishikawa-training school" is a place to teach the basics. Therefore, we focus on thorough implementation of ABC.

Ishikawa If getting too used to it, people tend to do bodge job. ABC is really difficult. The fact that the concept of "Manufacturing Action Guidelines" became actual words and that everyone stays conscious of it serve as important foundation for "Ishikawa-training school."

What we are aware of in "human development" at "Ishikawa-training school"

Abe First, I try to use the correct words that can be understood even outside the company. There are words called "NS term," which are understood only on the working site of NS TOOL. I make efforts to teach in correct words so that employees can communicate with users in an appropriate manner. And, I try not to give answers right away. I teach the basics thoroughly. However, since there are many cases in which employees improve their skills by learning within the rules specific to the manufacturing site, I consciously draw the line.

Ito They are new employees. No wonder they get nervous and concerned. In addition to teaching basics, I try to establish the secured learning environment through speaking to them, etc. Developing industry-ready employees does not only mean developing employees who can "do" their works. We need to lead them so that they "understand" their works and become able to apply what they learned. Being conscious of having them think, we contrive ways to teach them.

Ishikawa Developing human resources who can think and act spontaneously and autonomously is a never-changing theme. We have plenty of environment where employees can take on a challenge. So, I want to develop the human resources that voluntarily seize the chance. In the future, I would like to provide education not only to new employees but also to employees who have worked for a certain period so that they can further improve their ability.

"Distinction" of the Company's manufacturing

Ito We, who are in charge of education, think the fact that the Company provides enough time and place for education leads to the "distinction."

Ishikawa I think the "distinction" is quality. Judgement criterion is quality, which has become some kind of a catchword. This is why we can compete with other companies. Our passion for quality is the "distinction" and a strength at the same time. At "Ishikawa-training school," we repeatedly tell that you make and protect the quality.

Abe This is a kind of leeway realized by many opportunities to take on challenges and the established environment of manufacturing. We do not wear a hat in our factory, which is rear in factories that use oil. Such an environment has been established. Being conscious of quality and devoting yourself lead to the "distinction."

For future

Abe Being committed to the idea of "making everyone understand the subject without difficulty" all the time, I would like to contribute to the improvement of NS TOOL brand.

Ito I would like "Ishikawa-training school" to be a place that supports the participants emotionally, in addition to providing educational program that help the participants devote themselves for acquiring knowledge.

Ishikawa I would like to contribute to improvement of NS TOOL brand from the perspective of human resources education and develop a company where everyone becomes a colleague and enjoy working.



Voice of "Ishikawa-training school" alumni



Shunya Miura
Manufacturing Section-2
(Joined NS TOOL in April 2019)

At "Ishikawa-training school," we learned basic operations of machines and, in the end, experienced processing of actual products, instead of product samples. I joined the production line, processed the products coming from the previous process, checked them, and send them to the next process. I felt pressure. However, at the same time, the experience of processing the product on my own and sending it to the next process brought a sense of achievement.

As I understand the flow of manufacturing, I started to be aware of not only precision and quality but also time, which is the basis when thinking about delivery time. The basics of what I do now was covered by the curriculum. So, the experience helps me a lot.

Being involved in manufacturing makes me feel a sense of evolving and achievement at different situations. While making sure to thoroughly observe "ABC of quality and safety," I would like to improve my skill. In the future, I would like to engage in processes such as arranging the schedule and operation design.



Shion Mizuma
Manufacturing Section-2
(Joined NS TOOL in April 2020)

At "Ishikawa-training school," I learned how to create the basic design with the Tool Grinding Machine "TGM." Measuring with microscope was particularly difficult. We set the goal of achieving measurement error within 2 μm. However, since the measurement point and method varies, it took long time. I was afraid of what would happen next. The program made me realize the difficulty of measuring. However, I worked on shortening the measuring time through trials and errors while making all kinds of efforts. I am still conscious of the words I learned at "Ishikawa-training school" "Safety does not exist."

Hard work at "Ishikawa-training school" helped me a lot on the manufacturing site. I realize the joy of manufacturing when I finished processing after considering how to process the product efficiently by reducing the steps. I am conscious of updating myself everyday through implementing the PDCA for myself with the aim of enhancing productivity. My next goal is to be able to engage in molding of grinding stone for making end mills.



Akina Matsuda
Manufacturing Section-3
(Joined NS TOOL in April 2021)

I learned the all processes of Tool Grinding Machine "TGM" in the training. In the beginning, I did not know which of many buttons should be pushed, and could only do what I was told. However, thanks to the colleagues and teachers, my skill has improved little by little. I still remember the glad when I finished the work with the arrangement and within the time I am satisfied for the first time. Everything I learned at "Ishikawa-training school" supports me doing my current work.

When dealing with the new designs, I stumble some times. In such a case, I ask people on site and work on it while devising myself. When it is completed, I enjoy a sense achievement.

Before too long, it will be two years since I was assigned to this section. Though I have experienced a wide variety of types of processing, considering the fact that there are more than 10,000 types, I feel I do not have enough experience. I would like to improve my skills so that I can teach many things to my junior colleagues after having more experience.

Learning about yourself and others to respect diversity and realize

“*MEI-RAKU-SO* (Cheerful, Comfortable and Creative)”

For long time, NS TOOL has continued CSP Training that starts with the question “What is myself?” to put the company motto “*MEI-RAKU-SO* (Cheerful, Comfortable and Creative)” into practice, instead of aiming for increasing the knowledge. We asked the reason and aim to three people involved.



Mr. Minoru Kawamura

Job Interview/Development Advisor
Part-time teacher of Economic Department, Komazawa University

Yuko Adachi

Managing Director
(in charge of general affairs/administration)
NS TOOL CO., LTD.

Masahito Kobayashi

Executive officer
General Manager of General Affairs Department
NS TOOL CO., LTD.

Beginning and history of CSP Training

Kawamura CSP Training is a self-understanding training using the aptitude test for understanding the character and temperament called “Communication Style Profile.” The training was developed by the company I was then worked for. Trigger for the development was an advice given by a customer thirty years ago. The person said “Aptitude test should lead to happiness of the people who take it.” Back then, there was only SPI* check. The word “aptitude test” was associated with “selection.” However, the test incorporated the idea of leveraging people through a psychological test. I got to know Managing Director Adachi when holding the seminar. She introduced the test to NS TOOL.

Adachi In 1985, the year I joined the Company, it was like a small factory. When the former Chairman assumed the office of President, he said “I want NS TOOL to be a company where employees enjoy working.” So, I, as Manager of General Affairs Section, attended various training programs on improving ability of employees. In the course of the process, Nippon Omni-Management Association, the contact point of the training, introduced CSP Test to me. According to the Association, your temperament and the way you connect with others can be analyzed by providing feedback of the test results. So, I attended the program and asked the Company to introduce CSP Training. I have known Mr. Kawamura since I met him at that time.

Kobayashi I joined the Company in 2005. By then, the system to have all the officers and employees attend CSP Training has been established. Since its theme was to learn about yourself to know others, I personally thought it was very interesting training. The keywords are, the last words in the training said by Mr. Kawamura “You cannot change your character, but can change the pattern of your behavior if you become aware of it.” We continue the training, because it goes well with our policies.

*SPI: Synthetic Personality Inventory, the oldest aptitude test in Japan, which measures the qualifications needed for members of society in general with the “ability test” and “character test.”

Purpose and significance of CSP Training

Kawamura I have been involved with people who are responsible for personnel affairs in various businesses and industries. According to my observation, many Japanese companies tend to apply the idea of “agreement in general,” and are lack of mutual understanding and the idea of focusing on individuals. There are many companies that consider “thinking” is for management level and all employees need to do is to obey the instructions and orders. As a result, motivation and creativity of employees deteriorate.

CSP is characterized by paying attention to what should be done for improvement of employees’ performance instead of selection of individuals. Each one of employees has different academic ability, capacity, motivation, and a sense of value. You should not judge them all by a criterion but, in general, draw out the performance of each of them. So, we focus on the idea of mutual understanding, that is, learning about yourself to know others.

It also leads to diversity. I think NS TOOL has put the advanced initiatives of accepting the diversity, respecting each other, and drawing out the performance into practice for more than thirty years.

Adachi Back then, the concept of employee education did not exist in the Company. In a sense, we made judgement only by superficial results, such as “how many tools did we grind?” On the other hand, there has always been the awareness of valuing others in the foundation of the Company. As we have promoted the business, knowledge and experience of the entire company have been accumulated. We asked Mr. Kawamura to help us foster organizational culture through casting them into shape and pass them down to the next generation.

Achievement of CSP Training

Adachi I have attended Mr. Kawamura’s training program several times, and started to understand myself. I have my sense of value, and the other person has his/her own: I came to be aware of the way of teaching and conveying the message based on such an idea without thinking. This perspective has led to the change in myself. Before Mr. Kawamura, we asked a consulting firm to give a training program. However, they kept talking about preparation of manuals, which made me worry about the emotional distance. It was fortunate to encounter Mr. Kawamura when I seek the way the employee-supporting education should be.

Kawamura There are training programs for improving knowledge. CSP Training, on the other hand, has dealt with the question “What is myself?” This question leads to interest in people. If you reflect on yourself, you can confront others in a positive manner. Organization consists of people. It can say that people is the organization. In the case of NS TOOL, I feel a strange sense of matching. It is like the each employee’s reflection on him/herself is embodied in the company motto “Cheerful, Comfortable and Creative,” which means making most of creativity with everyone in a joyful, pleasant manner.

Kobayashi For example, when I make a group of four people at the training, I pick up people with different temperament. And, a card stating what each person thinks about other members is presented in the end. By doing so, the person knows how others think of him/her. Participants can realize the part of themselves that they have not known since then by comparing it with the check sheet. We share the results with their superior colleagues and use them for management. “*MEI-RAKU-SO* (Cheerful, Comfortable and Creative)” is our origin. I think CSP Training is necessary to reflect it in the organization in a positive manner.

Future development of CSP Training

Kobayashi In the future, I would like to conduct the training program on a regular basis, and enable to understand the changes made over time through accumulating the records. By visualizing your own changes, I would like to look back on your own growth like CV and connect it to career formation.

Adachi I want it to be a tool that helps you recognize the change in yourself and analyze how your change influences the organization and contributes to the change in the organization. To develop individuals and organization that embody “*MEI-RAKU-SO* (Cheerful, Comfortable and Creative),” I would like to make a company that can realize “*MEI-RAKU-SO* (Cheerful, Comfortable and Creative)” in a high level through having the organization take advantage of the results accumulated in CSP Training and systematizing the processes from recruitment to personnel system.

"monozukuri" means manufacturing in Japanese.

JIMTOF 2022

November 8-13, 2022
The 31st JAPAN INTERNATIONAL MACHINE TOOL FAIR

| | | |
|-----------------------------------|--------------------|------------------------|
| Number of participating companies | Number of visitors | Venue |
| 1,087 | 141,948 | Tokyo Big Sight |

JIMTOF2022, the largest exhibition in the machine tool industry, was held in person for the first time in four years since 2018. It was the largest exhibition ever using the entire buildings of Tokyo Big Sight in Ariake, Tokyo.

In our booth, under the concept of "provision of high value-added products," we introduced our products that enhance the productivity for visitors belonging to the manufacturing sector. Our characteristic products including the new ones were exhibited in four categories, "High Precision x Long tool life," "High Efficiency x Long tool life," "Mirror-finishing x Long tool life," "Precision, Micro x Long tool life," to make proposals suitable to the issues of visitors.

In addition, we invited a manufacturing-type YouTuber Monozukuri Taro, who made a presentation on NS TOOL's passion. And, as an exhibitor's workshop, we held a seminar titled "initiatives for high value-added processing of high hardened steel" to deliver the information of our high value-added products to many visitors.



Persons responsible for sales explained our products and the way of processing to each one of the visitors.



Thanks to Monozukuri Taro's presentation, our booth was enthusiastically received.

We interviewed three female lecturers who aim for improving the ability of employees, which leads to the growth of the company, and being engaged in invigoration of the company.



Yukiko Matsuo Haruko Iwasaki Akina Takahashi

Yukiko Matsuo

Chief, Accounting & Finance Section, Administration Department

After working for a finance company, joining NS TOOL in 2007. Experiencing Sales Administration Section, and being transferred to Accounting & Finance Section. Currently, responsible for training programs on basic knowledge of accounting.

Currently, I am responsible for accounting works of Makino Industry Co., Ltd., a Group company, and provide the training programs on basic knowledge about accounting at Makino Industry Co., Ltd. and Sendai Factory. The first difficult situation was to consider where to start the program on the premise that the participants do not have knowledge of bookkeeping, because I wanted them to understand the basics of accounting. And, since there are many terms specific to accounting, I tried hard to make them understand the maximum contents in a limited time.

The Company is listed in the Prime Section of the Tokyo Stock Exchange. So, numerical values are important to visualize the business activities in a quantitative manner. I want numbers to be utilized also on the sites of production and development so as to encourage employees to seriously confront the products and help make improvements. I would like to keep being creative so that accounting takes root on the manufacturing site and my training program contributes to enhancement of the entire company.

Haruko Iwasaki

Member of Accounting & Finance Section, Administration Department

After joining NS TOOL in 2011 as a new graduate, belonging to Accounting & Finance Section till now. Responsible for training programs on accounting knowledge and feedback for manufacturing sites.

Mainly, I am in charge of accounting works of NS Engineering Co., Ltd., a Group company. A year has passed since I started to be involved in in-house training on accounting. To teach others, I need to understand what I teach. So, I have kept studying while providing the training program. I try to use the words and give explanation that are easy to understand even for those without accounting experience, and contrive to prepare easy-to-see materials so as to encourage participants to review them after attending the program. In the course of the preparation, I realize what I do not understand sufficiently, which leads to my growth.

In 2011, the year I joined the Company, I could not attend the on-site training in Sendai Factory because of the Great East Japan Earthquake. Recently, I had an opportunity to participate in a training program, and realized how hard it is to be involved in the manufacturing site, which pursues high precision and improvement to cost reduction at the same time. And, I felt the importance of cooperation while mutually understanding the roles of manufacturing and accounting. Through asking the opinions of those manufacturing site, I will make efforts so that the future training programs will make some improvements and have participants notice something new.

Akina Takahashi

Chief, General Affairs Section, General Affairs Department

Belonging to General Affairs Section since joining NS TOOL in 2009. Responsible for planning and production of various basic training contents.

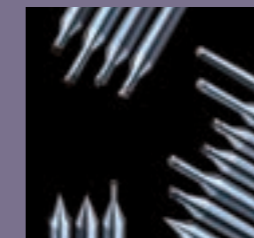
General Affairs Section of General Affairs Department is a section dedicated to education. We are responsible for basic trainings such as introduction training (for new employees), compliance training, and training for persons to be evaluated. Partly because I majored in film script when I was a student, I started with preparing the text book, then created the training contents, and, as it turned out, started to serve as a lecturer.

Recently, due to the impact of COVID-19, some training programs are provided through distributing the video that was created. We create five-minute-long videos based on the planned theme and provide a video training for the Company and Group companies on a regular basis. For preparing the educational materials, I try to make it as easy-to-understand as possible, and use the words that would be understood by 15-year-olds. In the future, through the training programs, I would like to increase the opportunities to have employees and those of other departments understand each other, which had not been realized in the COVID-19.

High Precision x Long Tool Life

Core line "CBN End Mill" series

CBN (cubic boron nitride) was launched in 2003 as a tool material. Currently, we have many variations consisting of 15 types and 548 sizes in total. Since its material hardness is very high, it realizes "High Precision x Long Tool Life" of high hardened steel.



High Efficiency x Long Tool Life

"MUGEN COATING PREMIUM Plus" series

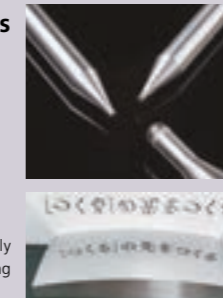
New coating series with high oxidation and abrasion resistance optimized for processing high hardened steel. In addition to "High Precision x Long Tool Life," it realizes "High Efficiency x Long Tool Life."



Mirror-Finishing x Long Tool Life

Core line "PCD End Mill" series

PCD (polycrystalline diamond) is used as a tool material. This series enables significant reduction of time to polish various designs. Milling with it realizes "Mirror-Finishing x Long Tool Life."



Letters written on the wall are clearly reflected in the mirror surface machining (curved surface below).

Precision, Micro x Long Tool Life

"Micro Edge"

Our flagship series that standardized the "smallest diameter $\phi 0.01$ mm," whose blade tip is finer than hairbreadth. The micro-size end mills are tools to explore the future of processing, and realizes "Precision, Micro x Long Tool Life."



With "Micro Edge" with cutting edge diameter 0.01 mm, we engraved the letters "NS TOOL" on hair.

Making our specialization in precision and micro machining market into a strength, we make most of our “distinction” to further grow for contribution to our users.

International Sales Department strengthens marketing activities utilizing the online media such as SNS to confront COVID-19, the new business environment. We interviewed General Manager Iwata and two members of International Sales Section to ask about the current status of the Department that has expanded its cross-border activities.



Yueming Zheng
International Sales Section of the same department

Daisuke Iwata
General Manager of International Sales Department
NS TOOL CO., LTD.

Mari Kawana
International Sales Section of the same department

Message to our stakeholders

Iwata We have pursued high added value that realizes unique high precision, high efficiency, multi-functional, and long-lasting. I think our users as well as local sales agents seek the high value-added products that we aim for. To explore the new market, it is essential that the market understands the high added value the Company pursues. And, for the market we could explore, we contribute to the profit of our users through providing high value-added products and services. Ultimately, this cycle promotes the growth of the Group.

Making our specialization in precision and micro machining market into a strength, I would like to enhance the initiatives for taking advantage of our absolute “distinction” in the market with our high specialization pursuing high added value. While having expanded the base of customers in the overseas market, we need to clarify the target market and keep our business resources focused on the market so as to grow in the overseas market.

Review of business activities in FY3/23

Iwata In Overseas Business, both net sales and profit slightly increased yoy. By region, smartphone market stagnated in China. And, the country’s Zero-COVID-19 policy deteriorated the operating rate of production at the companies including our users. It was a harsh year. On the other hand, even under the strict restrictions, local companies and agents implemented activities to re-explore the precision and micro machining market. In particular, they try to expand the demand in medical treatment industry.

Taiwan captured the strong global demand for semiconductors, resulting in a significant increase in revenues in the first half. Though the results of the second half, when the market conditions deteriorated, were sluggish, full-year net sales were record high. Regarding Asian market other than Greater China, sales of items for automobile-related use started to recover in the countries like Thailand, our major market. Demand for items for precision-mold use has been heightened in Vietnam and India. So, we are trying to expand the local sales network. As for Europe, production operating rate deteriorated in major markets such as Germany and Italy due to energy problems caused by Russian invasion of Ukraine. However, there was a sign of recovery in the second half.

In 2022, demand expanded in East Europe. And, regions where we do not have many users, including Greece, South Africa, Australia, and Brazil made a lot of inquiries. There are several reasons behind it: In addition to acceleration of territorially distributed production system across the globe, the Company has promoted a wide variety of online marketing activities using SNS, etc.

Zheng We considered how to promote PR and branding activities when we cannot go on a business trip because of COVID-19. We created contents not only for English- and Chinese-speaking countries, but for each market in its local language. Taking advantage of those contents, we launched the webinar for a limited time on “NS TOOL GLOBAL Cloud+,” a technical service site for overseas market, and strengthened the activity to provide information on SNS. The content of webinar is not limited to simple introduction of products. We try to cover various information related to precision and micro machining. I think the fact that a manufacturer directly delivers the information, instead of leaving it to agents, is significant. I feel those marketing activities lead to exploration of the potential market.

Kawana As a person in charge of the U.S., I was involved in launching of a subsidiary in the U.S., and distributed information via “LinkedIn,” an SNS, to prepare for “IMTS2022(International Manufacturing Technology Show),” the machine tool exhibition held in Chicago in September 2022. Though the visitors of IMTS greatly decreased compared to the previous exhibition held four years ago, number of visitors to NS TOOL USA booth and inquiries we received increased. Some of the users visited IMTS said “You are the one who posted the information on LinkedIn” and “I came here after checking LinkedIn.” I felt the effect of the activity. Since I proactively posted the contents, the number of followers increased. Using it as a foundation, I started to follow up our followers and users.

Current initiatives

Zheng Currently, we focus on multilingualization of marketing contents, etc. of our “MUGEN COATING PREMIUM Plus” series. Though content itself is roughly the same as the Japanese version, we try to localize the details so that the content suits the region. And, we were prepared a leaflet dedicated to overseas medical treatment industry, that is a tool for exploring the new market. Local sales agents proactively use them. Since we need to be in charge of various areas with limited number of people, it is essential that we establish a win-win relationship with local sales agents, in other words, our partners. We would like to exchange knowledge each other and deepen the commitment.

Kawana I am dedicated to the business in Mexico, whose potential market size is same as the U.S. I prepare materials and videos in Spanish, and hold seminars at the same level as the U.S. In addition to the heightened demand, communication with local sales agents in Spanish made our communication easy, which is showing a sign of business expansion.

Iwata In International Sales Department, members of both sales and marketing individually have responsible areas. To keep the members motivated, we develop a plan to share the general direction of the Department. Considering the conditions of each market, such as its characteristics and environment, we draw up strategies by market. And, while implementing the PDCA cycle, we try to establish an optimum area portfolio. In putting this into practice, strengthening of partnership with local sales agents is important initiative.

Introduction of overseas subsidiaries

NS TOOL Hong Kong Ltd. Hong Kong Headquarters



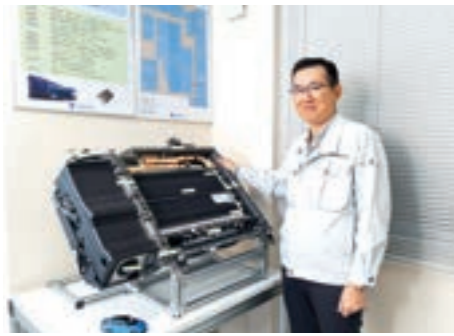
NS TOOL Hong Kong Ltd. Shenzhen Representative Office



NS TOOL USA, INC.



VOICE NISHIMURA Co., Ltd.



Mr. Manabu Kinoshita
President
NISHIMURA Co., Ltd.

Aiming to be the world's best separator manufacturer with accumulated knowledge and solid technical power

With their keen eyes, Nishimura Co., Ltd. took particular note to fuel cells from early on. They are specialized in manufacturing separators, which are considered to be the most difficult. We interviewed President Kinoshita of NISHIMURA Co., Ltd., the company that has established the absolute strength while trying to differentiating itself from other companies.

History from founding

My grandfather founded the company. Fifty-one years have passed since we were demutualized. In the beginning, we have no factory and my grandfather manufactured inspection gauge all by himself. Then, he proactively introduced machine tools to enhance the company's level of manufacturing and started to handle precision parts processing. In addition to the Japan-made wire-cutting machine, which was rare those days, he introduced various machines so that the company can handle every processing process. Taking advantage of our strength pointed out by our customers "If you give a drawing to Nishimura, they will give you a finished product," we have been developed until now.

Focusing on fuel cells to make distinction

Around 2000, when processing machines were becoming increasingly sophisticated and we were worried about the way to differentiate ourselves from other companies using technical power, we came up with the idea of being engaged in the area in which we can be No. 1 in the field of die making. This is why we paid attention to fuel cells. Machines that were needed to realize the idea was very expensive. So, I filled in the application form to receive the subsidy from the government and asked my father, then President, for the rest of the money in order to purchase the machine.

Encounter with NS TOOL

Expensive machine arrived. However, we needed to raise our technical level to make full use of it. It was a special machine for processing with small-diameter tools. When I said "I want good small-diameter tools" to a trading company that we had relationship with back then, they recommended the product of NS TOOL. So I started to use their small-diameter tool. Since we process many complicated and difficult designs, considerable ingenuity was needed. When I asked engineers of NS TOOL, they provided various advices and tips, which was a great help. Thanks to them, now we are able to handle dies of separators and pressed products, whose processing is said to be most difficult among fuel cell parts.

Aiming for the world's best separator manufacturer

Fuel cells use hydrogen to generate electricity and water without emitting CO₂. One of the big reasons I took notice of fuel cells area was contribution to global environment protection. I think, in the future, use of fuel cells will extend to automobile and other mobility fields. Taking advantage of our technical power and knowledge and know-how that have been developed, we would like to aim for the world's best manufacturer of separator.

Corporate Profile

| | |
|------------------|--|
| Founded | March 1965 |
| Capital | ¥29,250,000 |
| Headquarters | Toyota-shi, Aichi |
| Business Summary | One-stop production of precision parts and dies realized by ultra-precision processing technologies in a wide range of fields, such as fuel cell parts, rocket engine prototype parts, and artificial joint. |
| No. of employees | 65 (as of the end of March 2023, including employees of the group companies) |
| URL | http://www.nishimura-net.co.jp/en/ |

VOICE SANSYU FINETOOL Co.,Ltd.



Mr. Munetaka Kamiya
President
SANSYU FINETOOL Co.,Ltd.

Being aware of the "distinction" learned from NS TOOL, we continue to pursue our unique "distinction"

We interviewed President Kamiya of SANSYU FINETOOL Co.,Ltd., which defines the company's "distinction" referring to NS TOOL as its management benchmark and aims for high value-added manufacturing through honing its distinction.

Do not depend on one company or one industry

Our company was founded in 1925 by my grandfather who was a ceramist and also worked as a wholesaler. Since luxury goods were prohibited during the war, he changed his occupation to manufacturer of watch parts. However, since his customers started manufacturing internalization, he lost job, which is the foundation of the policy of "do not depend on one company or one industry." Then his company engaged in OEM of molding parts globally that were used for calculators, etc. before starting to internalize manufacturing of molds for molding parts with the aim of the growth with profit.

Knowing the good and bad points of my company's molds from the users' perspective

I joined the company in 1997 and was responsible for mold manufacturing before being transferred to the overseas base for about eight years. I realized the perspectives of mold users during my stay overseas. Since I came to know good and bad points of our company's molds, with the aim of technology upgrade, I enhanced external sales of molds in addition to internalization of mold manufacturing for the use inside the company.

NS TOOL is the benchmark of management

We encountered NS TOOL at an exhibition in 1999. Back then, we were looking for an end mill with a diameter of

0.1 mm, which was not on a catalogue. As we made inquiries to various manufacturers, NS TOOL was the only company that provided us with the customized product immediately. In those days, I was concerned that selling molds would be difficult, unless performance of the machining center and tools are improved and we find the "distinction." We were impressed by NS TOOL, which is specialized in small-diameter tools, explain the technologies in an easy-to-understand manner, and have an attitude of sparing no effort to have users use the product. This is why set the management method of NS TOOL as our benchmark. We are strongly aware of the "distinction."

What is our unique "distinction"?

We try to share the sense of value with customers in the upstream processes as much as possible so as to realize the manufacturing that can stay away from price competition. As we focus on showing the customers what we do, we stick to manufacturing internalization. For example, fabricate automated machine is manufactured in-house. In the current era, it is difficult to differentiate ourselves from other companies if focusing only on micro machining, because tools and machines are evolving. In addition to the specialization in the two-type molding, which combines two different materials into a part, we focus on analysis of manufacturing process of molds. We will further pursue our unique "distinction" and use it to the next-generation growth.

Corporate Profile

| | |
|------------------|---|
| Established | August 1967 |
| Capital | ¥25,000,000 |
| Headquarters | Takahama-shi, Aichi |
| Business Summary | The mold manufacturing department that supports the "precision" of SANSYU in the SANSYU Group, which is the conglomerate pursuing and creating "small and precise goods" in various fields. |
| No. of employees | 74 (as of the end of March 2023) |
| Group URL | https://www.sansyu-pr.co.jp/eg/ |

Financial and Non-Financial Highlights

NS TOOL CO., LTD. and Consolidated Subsidiaries

(Unit: ¥ million)

| | FY3/14 | FY3/15 | FY3/16 | FY3/17 | FY3/18 | FY3/19 | FY3/20 | FY3/21 | FY3/22 | FY3/23 | 22/23 Changes |
|--|--------|--------|---------|--------|--------|---------|---------|--------|--------|---------|---------------|
| Profit and loss (For the year) | | | | | | | | | | | |
| Net sales | 6,418 | 7,402 | 8,382 | 8,825 | 9,767 | 10,476 | 9,531 | 8,100 | 9,524 | 9,656 | 1.4% |
| By product | | | | | | | | | | | |
| End mills (Diameter 6 mm or less) | 4,570 | 5,301 | 5,931 | 6,377 | 7,390 | 7,832 | 7,310 | 6,338 | 7,449 | 7,483 | 0.5% |
| End mills (Diameter over 6 mm) | 825 | 925 | 971 | 1,033 | 1,095 | 1,152 | 945 | 739 | 909 | 891 | -2.0% |
| End mills (others) | 586 | 661 | 805 | 788 | 577 | 697 | 614 | 478 | 488 | 536 | 9.8% |
| Other products | 435 | 514 | 673 | 626 | 704 | 793 | 660 | 543 | 677 | 744 | 10.0% |
| Ratio of small-diameter end mills | 71.2% | 71.6% | 70.8% | 72.3% | 75.7% | 74.8% | 76.7% | 78.3% | 78.2% | 77.5% | — |
| Overseas net sales ¹ | 1,268 | 1,703 | 1,944 | 2,167 | 2,553 | 2,898 | 2,916 | 2,495 | 2,954 | 3,112 | 5.4% |
| Ratio of overseas net sales | 19.8% | 23.0% | 23.2% | 24.6% | 26.1% | 27.7% | 30.6% | 30.8% | 31.0% | 32.2% | — |
| Gross profit (loss) | 3,076 | 3,707 | 4,389 | 4,823 | 5,528 | 5,929 | 5,224 | 4,137 | 4,891 | 5,115 | 4.6% |
| Selling, general and administrative expenses | 2,006 | 2,226 | 2,475 | 2,810 | 2,833 | 3,049 | 3,005 | 2,624 | 2,780 | 3,007 | 8.2% |
| Operating profit (loss) | 1,069 | 1,481 | 1,914 | 2,013 | 2,695 | 2,879 | 2,219 | 1,512 | 2,111 | 2,108 | -0.1% |
| Ordinary profit (loss) | 1,107 | 1,534 | 1,954 | 2,026 | 2,733 | 2,894 | 2,231 | 1,712 | 2,156 | 2,131 | -1.2% |
| Profit (loss) attributable to owners of parent | 694 | 973 | 1,342 | 1,420 | 1,903 | 1,970 | 1,545 | 1,214 | 1,522 | 1,475 | -3.1% |
| Cash flows (For the year) | | | | | | | | | | | |
| Cash flows from operating activities | 1,147 | 1,619 | 1,756 | 1,894 | 2,910 | 1,868 | 1,908 | 2,526 | 2,261 | 1,614 | -28.6% |
| Cash flows from investing activities | (82) | (594) | (1,322) | (787) | (657) | (1,383) | (1,769) | (187) | (348) | (1,137) | 226.0% |
| Free cash flows | 1,065 | 1,025 | 434 | 1,107 | 2,252 | 485 | 138 | 2,338 | 1,912 | 477 | -75.1% |
| Cash flows from financing activities | (121) | (186) | (250) | (499) | (562) | (563) | (562) | (438) | (763) | (560) | -26.5% |
| Financial status (At year-end) | | | | | | | | | | | |
| Total assets | 9,075 | 10,339 | 11,371 | 12,517 | 14,467 | 15,381 | 16,017 | 16,936 | 17,874 | 18,857 | 5.5% |
| Cash and deposits | 2,856 | 3,716 | 3,898 | 4,659 | 6,325 | 6,209 | 5,784 | 7,674 | 8,543 | 8,497 | -0.5% |
| Inventories | 1,466 | 1,509 | 1,467 | 1,592 | 1,745 | 2,056 | 2,201 | 1,758 | 1,840 | 2,320 | 26.0% |
| Shareholders' equity | 7,678 | 8,464 | 9,557 | 10,652 | 11,993 | 13,400 | 14,383 | 15,162 | 15,944 | 16,929 | 6.2% |
| Per share data² | | | | | | | | | | | |
| Profit per share (¥) | 27.78 | 38.92 | 53.69 | 56.81 | 76.12 | 78.80 | 61.81 | 48.55 | 60.89 | 59.16 | -2.8% |
| Net assets per share (¥) | 307.10 | 339.12 | 382.66 | 426.55 | 479.94 | 535.74 | 574.81 | 605.44 | 640.58 | 680.51 | 6.2% |
| Dividend per share (¥) | 7.50 | 10.00 | 12.50 | 20.00 | 22.50 | 22.50 | 22.50 | 17.50 | 22.50 | 22.50 | — |
| Dividend payout ratio | 27.0% | 25.7% | 23.3% | 35.2% | 29.6% | 28.6% | 36.4% | 36.0% | 37.0% | 38.0% | — |
| Financial data | | | | | | | | | | | |
| Gross profit margin | 47.9% | 50.1% | 52.4% | 54.7% | 56.6% | 56.6% | 54.8% | 51.1% | 51.4% | 53.0% | — |
| Ordinary profit margin | 17.2% | 20.7% | 23.3% | 23.0% | 28.0% | 27.6% | 23.4% | 21.1% | 22.6% | 22.1% | — |
| Value added per employee ³ (¥ thousand) | 12,318 | 14,286 | 16,535 | 15,705 | 17,299 | 18,004 | 16,329 | 14,033 | 15,878 | 16,065 | 1.2% |
| Return on Assets (ROA) | 8.0% | 10.0% | 12.4% | 11.9% | 14.1% | 13.2% | 9.8% | 7.4% | 8.7% | 8.0% | — |
| Return on Equity (ROE) | 9.4% | 12.0% | 14.9% | 14.0% | 16.8% | 15.5% | 11.1% | 8.2% | 9.8% | 9.0% | — |
| Equity ratio | 84.6% | 82.0% | 84.2% | 85.2% | 83.0% | 87.1% | 89.7% | 89.4% | 89.2% | 90.1% | — |
| Research and development expenses | 231 | 232 | 304 | 366 | 330 | 296 | 364 | 388 | 428 | 422 | -1.3% |
| Capital investment | 469 | 612 | 1,295 | 774 | 663 | 1,268 | 1,755 | 462 | 659 | 686 | 4.1% |
| Depreciation | 534 | 474 | 505 | 632 | 625 | 629 | 698 | 707 | 692 | 669 | -3.2% |
| Non-financial data | | | | | | | | | | | |
| No. of employees | 284 | 281 | 280 | 322 | 338 | 343 | 338 | 339 | 348 | 352 | 1.1% |
| No. of directors | 9 | 9 | 9 | 9 | 8 | 7 | 8 | 9 | 9 | 9 | — |
| Ratio of independent directors | 22.2% | 22.2% | 22.2% | 33.3% | 37.5% | 28.6% | 37.5% | 33.3% | 33.3% | 33.3% | — |
| Ratio of external directors | 22.2% | 22.2% | 22.2% | 33.3% | 37.5% | 28.6% | 37.5% | 33.3% | 33.3% | 33.3% | — |
| Ratio of female directors | 11.1% | 11.1% | 11.1% | 22.2% | 25.0% | 28.6% | 25.0% | 22.2% | 22.2% | 22.2% | — |

*1 Overseas net sales include those via domestic export trading companies.

*2 The impact of the share split (1:2) implemented on April 1, 2021 was considered.

*3 Value added per employee=(operating profit+personnel expenses (including labor costs)+depreciation)/number of employees

Analysis on Financial Position and Management Results



Review of consolidated financial results for FY3/23

► For the summary of FY3/23 consolidated financial results and FY3/24 consolidated financial forecasts, please see “Top Message” on page 11 to 14.

In FY3/23, although there were concerns such as disruption of supply chains, raw materials price and energy price increase caused by geopolitical issues, economic activities started to be normalized and manufacturing industry showed a sign of moderate recovery. Following the situations, cemented carbide tool market in Japan increased by 9.1% yoy to ¥305.3 billion in CY2022 and, among which, cemented carbide end mill market increased by 5.5% yoy to ¥53.7 billion, showing a sign of recovery.

As for the Group’s business, among the major customers, recovery of production volume in the automotive industry was delayed amid the continued effects of parts shortages, and

demand has been sluggish. On the other hand, the market for semiconductor and electronic components and devices partially slowed down due to declining demand for PCs, etc. Overall, however, our business achieved a steady performance. As a result, consolidated net sales of FY3/23 increased by 1.4% yoy to ¥9,656 million.

By product category, sales of “end mills (diameter 6mm or less)” increased by 0.5% yoy to ¥7,483 million, and the ratio of small diameter (diameters 6mm or less) decreased by 0.7 points yoy to 77.5%.

By region, domestic net sales decreased by 0.4% yoy to ¥6,544 million, remaining almost constant. Regarding overseas market, while European and US markets were sluggish, Greater China (China, Hong Kong, Taiwan) and Other Asia showed solid growth. Overall, overseas net sales increased by 5.4% yoy to ¥3,112 million, and ratio of overseas net sales increased by 1.2 points yoy to 32.2%, both of which set a record high. In Greater China, which accounts for 48.9% of the overseas net sales, there was a trend of holding products in stock for the future demands such as rush demand anticipating the economic recovery. As a result, net sales of Greater China increased by 12.0% yoy to ¥1,523 million.

In terms of production, we took cost-reduction measures in addition to the existing activities conducted in small groups (Orange FC Activities) to cope with cost increase caused by sharp rise in raw material costs and electricity costs. As a result, gross profit in FY3/23 increased by 4.6% yoy to ¥5,115 million, and gross profit margin increased by 1.6 points yoy to 53.0%. Since the cost increase continued and our own efforts maintaining prices solely hit a limit, we could not help but revised the price of major products in November 2022.

In terms of sales, SG&A expenses increased by 8.2% yoy to ¥3,007 million due to participation in the large-scale exhibitions, etc. As a result, operating profit decreased by 0.1% yoy to ¥2,108 million, ordinary profit decreased by 1.2% yoy to ¥2,131 million, and profit attributable to owners of parent decreased by 3.1% yoy to ¥1,475 million. Regarding the KPI target of a 20% ordinary profit margin, although there was an increase in manufacturing costs and operating expenses, we achieved the target with a result of 22.1% by cost reductions. With regard to the other target of 10% ROE, profit attributable to owners of parent decreased by 3.1% yoy causing ROE to hold at 9.0%, which was below the target.

equipment and expenditures due to insurance funds related to new insurance contracts. Net cash used in financing activities decreased by 26.5% yoy to -¥560 million mainly due to payment of dividends. Considering those results and effect of exchange rate change, cash and cash equivalents decreased by ¥45 million (down 0.5%) yoy to ¥8,397 million on a consolidated basis.

Financial position for FY3/23

As for the financial position for FY3/23, total assets increased by ¥983 million compared to the end of FY3/22 to ¥18,857 million, due to an increase in inventories aimed at enhancing variety of product stocks, increase in insurance funds related to new insurance contracts, etc. Total liabilities decreased by ¥51 million compared to the end of FY3/22 to ¥1,657 million due to a decrease in income taxes payable, etc., and total net assets increased by ¥1,034 million compared to the end of FY3/22 to ¥17,200 million due to an increase in retained earnings, etc.

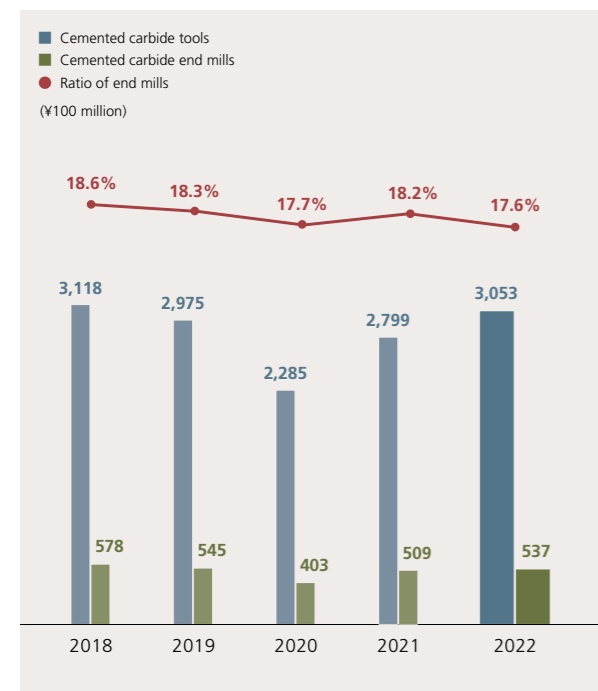
Followings are the results of cash flow: Net cash provided by operating activities decreased by 28.6% yoy to +¥1,614 million, excluding outflow of cash caused by increase in inventories and payment of income taxes from profit before income tax ¥2,110 million. Net cash used in investing activities increased by 226.0% yoy to -¥1,137 million reflecting expenditures due to the acquisition of property, plant and

Shareholder returns policy

Returning profits to shareholders is one of the important management issues. Therefore, regarding dividends, we will continue to consider capital efficiency in addition to the stability and continuity of dividends, comprehensively consider performance trends and dividend payout ratios, and consciously determine distribution in accordance with growth, based on the assumption of maintaining on-hand liquidity at or above the level necessary for medium-term business execution.

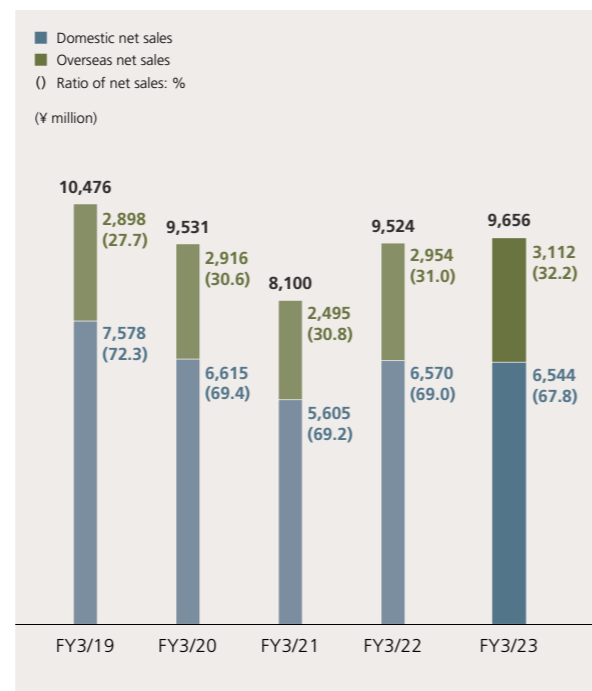
For dividend per share for FY3/23, interim dividend is ¥10.0, year-end dividend is ¥12.5, that is, ¥22.5 in total. Additionally, for the FY3/24, in light of the above policy and its anticipated business performance forecast, the Company is planning on paying an interim dividend of ¥12.5 per share, a year-end dividend of ¥12.5 per share, and annual dividend of ¥25.0, which is higher than that for FY3/23. From the perspectives of fairness in returning profit and balancing of shareholder dividends, we partially change the shareholders’ benefits program, and consolidate it into a preferential program for the shareholders who have continuously held 100 shares or more for more than three years.

Trends of production of cemented carbide tools and cemented carbide end mills (Calendar Year)

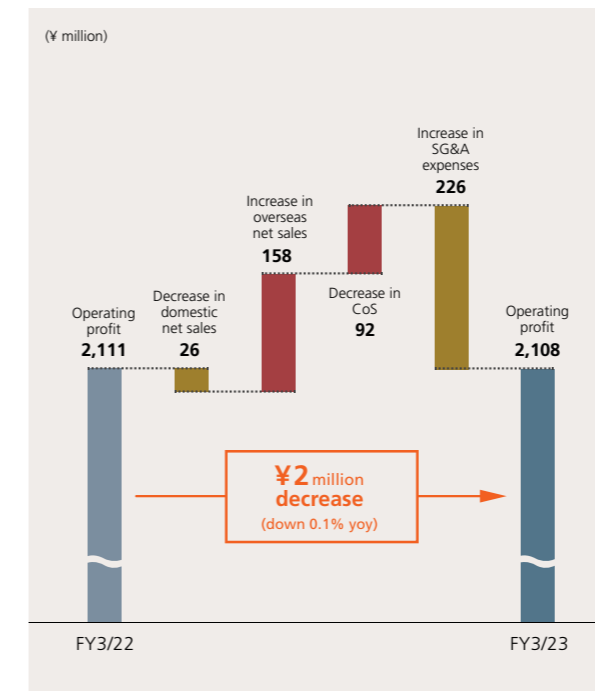


Source: Machinery Statistics, Ministry of Economy, Trade and Industry

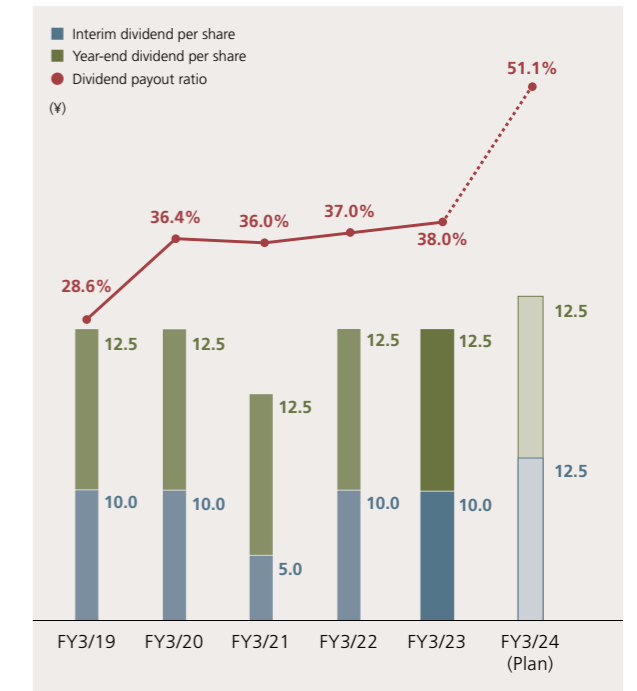
Trend of net sales (domestic and overseas)



Analysis on increases/decreases in consolidated operating profit



Dividend forecasts (Shareholder returns)




*The impact of the share split on April 1, 2021 was considered.

Profile of Management Team

| | | |
|---|---|---|
| <p>Hiroji Goto President</p>  | <p>Takashi Goto Senior Executive Vice President</p>  | <p>Yuko Adachi Managing Director</p>  |
| <p>Satoru Toda Director</p>  | <p>Hiroshi Tajima Director (Audit & Supervisory Committee Member)</p>  | <p>Kazuo Fukuda Director (Audit & Supervisory Committee Member)</p>  |
| <p>Naoko Fujisaki Independent External Director (Audit & Supervisory Committee Member)</p>  | <p>Toshiaki Hiraga Independent External Director (Audit & Supervisory Committee Member)</p>  | <p>Kenichi Sasamoto Independent External Director (Audit & Supervisory Committee Member)</p>  |

| | | |
|---|--|--|
| <p>Hiroji Goto President</p> <p>Apr. 1986: Joined NS TOOL Oct. 1988: Director and Deputy General Manager of General Affairs Group Apr. 1992: Managing Director Jan. 1995: Executive Director, in charge of sales Apr. 2011: Executive Vice President, in charge of sales Jan. 2013: CEO of NS TOOL Hong Kong Ltd. (present post) Apr. 2013: President of NS TOOL Oct. 2016: President of NS TOOL, in charge of sales (present post) Apr. 2021: Representative Director of G-Tech Co., Ltd. (present post) Nov. 2021: President/CEO of NS TOOL USA, INC. (present post)</p> | <p>Takashi Goto Senior Executive Vice President</p> <p>Apr. 1984: Joined NS TOOL Oct. 1988: Director and Deputy General Manager of Production Department Jan. 2002: Managing Director, in charge of production/development Apr. 2009: President of NS Engineering Co., Ltd. Apr. 2010: President of G-Tech Co., Ltd. Apr. 2011: Executive Managing Director of NS TOOL, in charge of production/development Apr. 2013: Senior Executive Vice President of NS TOOL Apr. 2016: Representative Director of NS Engineering Co., Ltd. (present post) Oct. 2016: Senior Executive Vice President, in charge of production/development (present post) Jan. 2021: President of Makino Industry Co., Ltd. (present post)</p> | <p>Yuko Adachi Managing Director</p> <p>Apr. 1978: Joined AIU General Insurance Co., Ltd. Apr. 1985: Joined NS TOOL Sep. 2001: Director and General Manager of General Affairs Department Feb. 2002: Director and General Manager of General Affairs Department, and President of G-Tech Co., Ltd. Jun. 2003: Director of NS TOOL, President of G-Tech Co., Ltd. Apr. 2005: Managing Director of NS TOOL (Information Supervisor) Nov. 2015: President of Makino Industry Co., Ltd. Oct. 2016: Managing Director of NS TOOL, in charge of general affairs/administration (Information Supervisor) (present post) Apr. 2017: Chairman of Makino Industry Co., Ltd. Sep. 2020: Chairman and President of Makino Industry Co., Ltd. Jan. 2021: Chairman of Makino Industry Co., Ltd. (present post)</p> |
| <p>Satoru Toda Director</p> <p>Apr. 1984: Joined Tokai Bank, Ltd. (current MUFG Bank, Ltd.) Oct. 2006: General Manager of Corporate Division 1, Yokohama Branch, Bank of Tokyo Mitsubishi UFJ, Ltd. Oct. 2009: Transferred to Mitsubishi UFJ Securities Co., Ltd. (current Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.) Apr. 2010: Registered as a Certified Public Tax Accountant (Chiba Prefectural Tax Accountant's Association) Jun. 2014: General Manager of Corporate Business Division 5, Mitsubishi UFJ Morgan Stanley Securities Co., Ltd. Apr. 2020: Joined NS TOOL Jun. 2020: Director and General Manager of CEO Office Feb. 2021: Director and General Manager of Administration Department Jul. 2021: Director, General Manager of Corporate Planning Office and Administration Department (present post)</p> | <p>Hiroshi Tajima Director (Audit & Supervisory Committee Member)</p> <p>Apr. 1985: Joined Universal Securities Co., Ltd. (current Mitsubishi UFJ Morgan Stanley Securities Co., Ltd.) Mar. 2005: Joined NS TOOL as General Manager of Corporate Planning Office Apr. 2010: General Manager of Administration Department Jun. 2010: Director and General Manager of Administration Department Jun. 2012: Executive Officer, General Manager of Administration Department Apr. 2018: Executive Officer, General Manager of Corporate Planning Office Jun. 2021: Director (Full-time Audit & Supervisory Committee Member) (present post)</p> | <p>Kazuo Fukuda Director (Audit & Supervisory Committee Member)</p> <p>Apr. 1974: Joined The Sanwa Bank, Limited (current MUFG Bank, Ltd.) Apr. 1995: Tokyo External Affairs Officer Jun. 1998: Joined The Wakashio Bank, Ltd. as Director and General Manager of Business Development Apr. 2003: Joined NS TOOL as General Manager of Administration Department Jun. 2003: Director and General Manager of Administration Department Jun. 2009: Auditor Jun. 2010: Full-time Auditor Jun. 2015: Director (Full-time Audit & Supervisory Committee Member) Jun. 2021: Director (Audit & Supervisory Committee Member) (present post)</p> |
| <p>Naoko Fujisaki Independent External Director (Audit & Supervisory Committee Member)</p> <p>Apr. 1968: Joined Sumitomo Bank, Ltd. (current Sumitomo Mitsui Banking Corporation) Oct. 1977: Joined MICRONICS JAPAN CO., LTD. Dec. 2000: Director and General Manager of Accounting Department of MICRONICS JAPAN CO., LTD. Oct. 2010: Executive Director and General Manager of Planning & Administration Division of MICRONICS JAPAN CO., LTD. Jun. 2016: Independent External Director (Audit & Supervisory Committee Member) of NS TOOL (present post)</p> | <p>Toshiaki Hiraga Independent External Director (Audit & Supervisory Committee Member)</p> <p>Apr. 1999: Registered as attorney (belonging to Tokyo Bar Association) Oct. 2007: Established law firm, Kitamura & Hiraga, Partner (present post) Mar. 2009: External Auditor of MS&Consulting, Co., Ltd. Apr. 2014: External Director of Polaris Capital Group Co., Ltd. Jun. 2016: Independent External Director (Audit & Supervisory Committee Member) of NS TOOL (present post) Jun. 2016: External Auditor of HUMAN ASSOCIATES HOLDINGS, Inc. (current MBK Wellness Holdings & CO., LTD.) Jun. 2019: External Director (Audit & Supervisory Committee Member) of HUMAN ASSOCIATES HOLDINGS, Inc. Jun. 2022: Auditor of Polaris Capital Group Co., Ltd. (present post)</p> | <p>Kenichi Sasamoto Independent External Director (Audit & Supervisory Committee Member)</p> <p>Jun. 1980: Joined Chuo Audit Corporation Sep. 1998: Senior Partner of Chuo Audit Jul. 2007: Senior Partner of A&A Partners Jun. 2010: External Audit & Supervisory Board Member of TOKATSU HOLDINGS CO., LTD. Sep. 2014: External Audit & Supervisory Board Member of Japan Corporate Housing Service Inc. (current SUNNEXTA GROUP Inc.) Sep. 2016: Left A&A Partners Oct. 2016: Opened Certified Public Accountant Sasamoto Kenichi Office Representative of the same (present post) Jun. 2018: External Auditor & Supervisory Board Member of TOKATSU HOLDINGS CO., LTD. Jun. 2019: Independent External Director (Audit & Supervisory Committee Member) of NS TOOL (present post) Jun. 2019: External Director (Audit & Supervisory Committee Member) of TOKATSU HOLDINGS CO., LTD. (present post) Sep. 2020: External Director (Audit & Supervisory Committee Member) of SUNNEXTA GROUP Inc. (present post)</p> |

| | | | | |
|---|---|-------------------------------|---|--|
|  | <p>Yuji Goto General Manager of Sales Department</p> | <p>Takashi Koizumi</p> | <p>Koichi Okada Head of Sendai Factory</p> | <p>Masahito Kobayashi General Manager of General Affairs Department</p> |
|---|---|-------------------------------|---|--|

Corporate Governance

Corporate Governance Structure

The Group has adopted basic guidelines for corporate governance to enhance the transparency and efficiency of its management and to enhance its corporate value in a stable and continual manner in order to meet stakeholders' expectations.

For details, please refer to Corporate Governance on our website.

System Diagram (as of March 31, 2023)

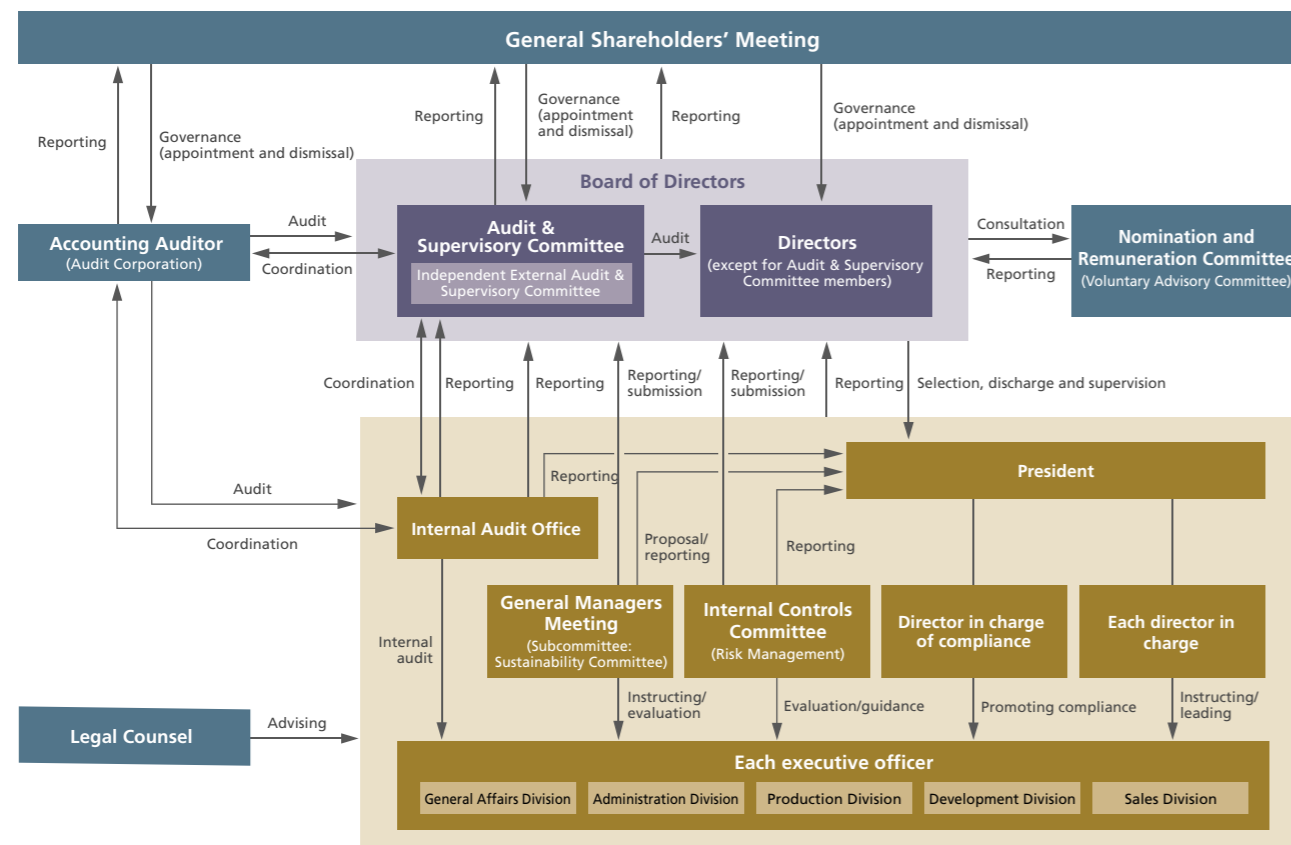


Chart of Structure (as of March 31, 2023)

| | |
|---|--|
| Corporate governance system | Company with Audit & Supervisory Committee |
| Number of directors who are not Audit & Supervisory Committee member (External directors out of them) | 4 (0) |
| Number of directors who are Audit & Supervisory Committee member (Independent external directors out of them) | 5 (3) |
| Term of office of directors | 1 year (2 years for Audit & Supervisory Committee members) |
| Incentive provided for directors | Restricted Stock Compensation Plan (except for Audit & Supervisory Committee members), performance-linked bonuses (except for Audit & Supervisory Committee members), executive stock ownership plan |
| Business execution system | Executive officers' system (currently consisting of 4 members) |
| Optional committees | Nomination and Remuneration Committee (consisting of 3 members: 2 external directors, and 1 internal director) |
| Accounting auditor | Audit corporation, A&A Partners |

Company with Audit & Supervisory Committee

The membership of Audit & Supervisory Committee consists of 5 members (1 full-time Audit & Supervisory Committee member and 4 part-time Audit & Supervisory Committee members, with 3 external directors out of the four). The Committee performs audits on managerial decision-making and the status of business execution. The members of Audit & Supervisory Committee attend important meetings including meetings of the Board of Directors and express necessary opinions. One of the Audit & Supervisory Committee members obtains a full-time position and works to ensure the effectiveness of audits by inspecting draft plans, which have been circulated for permission and approved, forms, contracts, etc., by meeting with the manager of each division, and by enhancing coordination with internal audit division and accounting auditor.

Current status of governance system

The Group's managerial decision-making and business execution processes are as follows.

Important managerial issues are proposed to the Board of Directors for deliberation. With regard to the agenda items of the Board of Directors, efforts are made to enhance the appropriateness and efficiency of the execution by the directors of their duties by, for example, providing the Board of Directors with as much information as possible in advance. The effectiveness of the Board of Directors meetings is also evaluated on a regular basis and efforts are made to improve the content of its operation. The agenda items submitted to the Board of Directors shall be approved or rejected through thorough deliberations and, if necessary, amendments such as adding conditions. Candidate proposals and remuneration proposals for directors (excluding directors who are Audit & Supervisory Committee members) will be consulted to the Nomination and Remuneration Committee and resolved after receiving a report from the Committee.

As for the agenda items that have been approved, executive officers in charge of individual business operation shall bear responsibility to perform the operations and report the status of the business operations they are in charge at the Board of Directors meetings. In addition, the Group has established the Sustainable Committee in-house, which regularly submits reporting and proposals to Board of Directors regarding its own sustainability (aiming for sustainable growth while coexisting with society), including climate change and human capital issues.

Directors receive reports from each executive officer, and supervise the status of the execution of their duties. As a rule, the Board of Directors meeting is held monthly. Special meetings of the Board of Directors are convened from time to time when necessary.

Development status of internal control and risk management systems

In order to establish the internal control and risk management systems, the Group has established the organization in which control and management are effectively done. Further, the Group provides a system for approval via internal memos, and conducts business operations based on the rules such as internal regulations. The Internal Audit Office, which is independent

from executing businesses, conducts internal audit of all the departments including affiliates inside and outside Japan, and makes reports to the President, Board of Directors and Audit & Supervisory Committee. In response to the internal control reporting system, the Group has built the Internal Controls Committee, chaired by the Managing Director, to evaluate the development and application status of each control process, and has exchanged views with audit corporation in a timely manner for coordination, so that matters that should be improved can be improved adequately.

External Director

The Company has appointed 3 external directors, both of whom are Audit & Supervisory Committee members. The role expected as external directors is to check the performance of duties of other Board members (without executing duties themselves) from an objective perspective, so that their duties are fulfilled appropriately via the Board of Directors meetings. With regard to the election of external directors, candidates are required to (i) have a high level of insight with respect to corporate management or abundant experience in the specialty field necessary to fulfill their auditing duties, (ii) have no issues with independence by taking into consideration such factors as relations with the Group, the President and other directors, executive officers and important staff members, and (iii) be able to attend the Board of Directors meetings and the Audit & Supervisory Committee. The Company has designated all the external directors that meet the requirement for independent director as independent directors.

In addition, the Independent External Audit & Supervisory Committee composed of independent director has been established within Audit & Supervisory Committee.

Reasons for the election

Ms. Naoko Fujisaki has an extensive insight and abundant experience as a director of a listed company, as well as extensive knowledge in finance and accounting (she was in charge of accounting, etc. for a period from December 1999 to December 2012 at a listed company).

Mr. Toshiaki Hiraga has not only high-level professional knowledge and experience as attorney but also an extensive insight and abundant experience as external director at other companies.

Mr. Kenichi Sasamoto has an advanced expertise and experience as a certified public accountant as well as his experience and insights as an external board member of other companies.

The three were appointed as external directors (Audit & Supervisory Committee members) based on the Group's judgment that, considering their wide range of knowledge and experience, etc., they will offer objective advices and proposals to ensure adequacy and appropriateness of the decision-making related to the Group's business execution, which will further enhance the management system. Also, the Company deems that the three are adequate to independent directors as they will cause no conflict of interest among general shareholders as they are neither major shareholder of the Group nor former employees of major business partners thereof.

Corporate Governance

Director's Expertise and Experience

| Name of director | Audit & Supervisory Committee Member | Nomination and Remuneration Committee | Required fields of experience and Expertise | | | | | | |
|------------------|--------------------------------------|---------------------------------------|---|---------------------|---|------------------------|------------------------|---|------------------------|
| | | | General management | Sales and marketing | Development and production technologies | International business | Finance and accounting | Legal affairs and organizational compliance | ESG and sustainability |
| Hiroji Goto | | ● | ● | ● | ● | ● | | | ● |
| Takashi Goto | | | ● | ● | ● | | | | ● |
| Yuko Adachi | | | ● | ● | | | ● | ● | ● |
| Satoru Toda | | | | | | ● | ● | ● | ● |
| Hiroshi Tajima | ● | | | | | | ● | ● | ● |
| Kazuo Fukuda | ● | | | | | ● | ● | ● | ● |
| Naoko Fujisaki | ● | ● | ● | | | | ● | ● | |
| Toshiaki Hiraga | ● | ● | ● | | | | | ● | ● |
| Kenichi Sasamoto | ● | | ● | | | | ● | ● | ● |

Board members' remuneration, etc. (FY3/23)

The remuneration of the Company's directors (except for directors who are Audit and Supervisory Committee members) shall be a remuneration system linked to shareholder interests so that it functions sufficiently as an incentive to continuously improve corporate value, and when determining the remuneration of individual directors, the basic policy is to set an appropriate level based on each responsibility.

Remuneration for directors (excluding directors who are Audit and Supervisory Committee members) and executive officers consists of basic remuneration (monetary remuneration) as fixed remuneration, performance-linked remuneration, etc. (monetary remuneration), and share remuneration (non-monetary remuneration).

Considering the role of audits in the execution of duties by directors (except for Audit and Supervisory Committee

members) from an objective and independent standpoint, directors who are Audit and Supervisory Committee members are paid only the basic remuneration (monetary remuneration) as a fixed remuneration.

There is no variable remuneration for directors who serve as Audit & Supervisory Committee members. For performance-linked remuneration, as a short-term incentive, the plan for payment considering the level of contributions made by the individual is formulated based on the total amount and calculated using the following formula: expected consolidated operating profit at the end of the fiscal year multiplied by a coefficient. The proposal is subject to consultation with the Board of Directors before being resolved. With regards to the Restricted Stock Compensation Plan, as a medium- to long-term incentive, we allocate the Company's shares with transfer restrictions until retirement.

Board members' remuneration (FY3/23)

| Positions | Total amount of remuneration, etc. (¥ million) | Total amount of remuneration, etc. by type (¥ million) | | | Number of directors eligible for remuneration |
|--|--|--|--------------------------------------|---------------------------------|---|
| | | Fixed remuneration | Performance-linked remuneration etc. | Non-monetary remuneration, etc. | |
| Directors (except for Audit & Supervisory Committee members) (except for external directors) | 297 | 160 | 93 | 44 | 4 |
| Directors (Audit & Supervisory Committee members) (except for external directors) | 31 | 31 | — | — | 2 |
| External directors (Audit & Supervisory Committee member) | 25 | 25 | — | — | 3 |

(NOTE) The amount of directors' remuneration does not include the salaries paid as employees to directors who serve concurrently as employees.

Business and Other Risks

Followings are the major risk factors and the status of engagement in those risks in the Group's business.

For details, please see the URL below.

https://www.ns-tool.com/ja/ir/business_strategy/risk/

Response to infective disease, etc.

Due to the occurrence of a pandemic similar to COVID-19, supplies of products to the market may experience delays or an impact on production networks may occur. The Group introduced a split shift framework and telecommuting framework and has prepared testing kits at various offices and endeavored to prevent the occurrence of internal clusters. In addition, the Group takes the overall measures by splitting the holding of its inventory and promoting a split production network that spans Sendai Factory (Miyagi) and Niigata Factory (Niigata).

Concentration of production and development bases

While streamlining the production and development framework by concentrating its production and development bases in the Northern part of Sendai (Miyagi), the Group has focused on strengthening and thoroughly taking measures against earthquake, and taken the overall measures like possessing inventory, dispersing production bases, etc. However, in cases where a large earthquake or other disaster occurs, the entire production and development framework of the Group will be impacted. The Group has placed the focus of related endeavors on seismic countermeasures at its Sendai Factory in particular. In addition to a further level of ideas and enforcement for regular countermeasures, the Group has incorporated new techniques, such as "All-round Isolation System." As a result, when the earthquakes of intensity 6 upper occurred in the Tohoku region in February 2021 and March 2022, the Group managed to fully recover production in a day or two.

Concentration of small-diameter end mills

Business of the Group is centered on the manufacturing and sales of the small-diameter end mills. While the standard method of precision and micro machining is cutting using small diameter cemented carbide end mills, in the future, this may be replaced with products containing other materials or new machining methods. The Group has also been developing, manufacturing and otherwise addressing products made with materials other than cemented carbide materials such as CBN (cubic boron nitride) and PCD (polycrystalline diamond), and is pursuing diligent research on other materials as well. As for machining methods, in recent years, many new machining technologies, such as SLS Additive Manufacturing using 3D printers and laser machining, are being developed. The Group will continue to highlight the superiority by providing environmentally-friendly small-diameter end mills, ones ensuring high performance in uniform sizes and shapes for reasonable prices.

Competition

In the small-diameter end mill market, major domestic tool manufacturers and companies of other business categories have turned their attention to that growth and have been reinforcing their production and sales framework. Competition will likely further intensify going forward. The Group believes that by focusing its management resources on small-diameter end mills and by the in-house developed specialized machining tools as well as its development, production and sales framework that specializes in small-diameter end mills, it has successfully constructed a business model to create and provide high value-added products at a low cost, and will proceed to work towards a further level of framework reinforcement.

Procurement of raw materials and rise in resource prices

There are concerns about the rising price and tight supply and demand for the major components of cemented carbide end mills, such as tungsten and cobalt (binding agent), both of which have become major problems being referred to as the "conflict minerals" by the issue of human rights violations in the mining process. The Group enforces the traceability, and while eliminating the intermingling of conflict materials using methods such as receiving the certificates from suppliers, it selects suppliers who are capable of long-term, stable supply as it engages in the procurement of materials. Additionally, regarding increase in the cost associated with the rise in the price of materials, we have absorbed it through cost-lowering activities, but we could not help but pass on some of the increases, and we revised the prices of cemented carbide products in November 2022.

Environmental issues

The Group conducts the business activities in an environment-friendly manner in accordance with ISO standard and the Basic Policy on Sustainability. At the same time, social demands for environmental consideration are growing by the day, and the Group is being called upon by various stakeholders to respond from an even higher line of sight. The Group has established the Sustainability Committee that regularly discuss and report environmental issues in the Group to the Board of Directors, formulates KPI for various departments based on the "Basic Policy on Sustainability," and incorporates a policy of addressing the environment in its management targets. As for the accommodation of climate change, the Group has commenced the disclosure of information based on TCFD.

Round-table Talk

Goto According to the survey, presentation by the person explaining the agenda and proper training of management team were pointed out as matters to be improved. First, regarding those two items, please provide us with the opinions on the recognition of the issues from the mid-term perspective and themes to be discussed at the Board of Directors meetings.

Presentation by the person who explaining the agenda

Hiraga Compared with other companies I have been involved, I think information in the Board of Directors meeting materials is very detailed. I am grateful for ample information provided. However, there is a risk of missing something because it is so detailed. So, considering the duty of care of a good manager as an external director, I think it is better to consider whether the information is really needed to be shared among the Board of Directors meetings, and in particular, content of items to be reported should be narrowed down a little.

Fujisaki What surprised me most when I participated in the Board of Directors meeting for the first time was the volume of the materials. As I get used to it, I started to be interested in the fact that the Company shares such a detailed information. According to my opinion, a lack of strategic discussion concerning management and business is an issue of the Board of Directors meeting. Since the Company deals with products that require quick delivery, reporting and discussions tend to place disproportionate weight on current business activities. In the Board of Directors meeting, however, themes for the future, such as business investment and efficient fund management, should be discussed, too.

Goto I recognize the fact that the Board of Directors meeting takes long time as an issue. Although we want to convey the current status of the Company to external directors in a detailed manner, we need to closely examine whether the volume of information is excessive. Regarding the reporting presented by executive officers of each division from the perspectives of developing the next-generation management team, material forms and information level differ according to the division. This is an issue, too. We will aim for higher-quality Board of Directors meeting operation while improving those issues.

Appropriate training of management team

Sasamoto What I feel when listening to the reporting by executive officers, which focuses on the situations inside the



Hiroji Goto
President



Naoko Fujisaki
Independent External Director
(Audit & Supervisory Committee Member)



Toshiaki Hiraga
Independent External Director
(Audit & Supervisory Committee Member)



Kenichi Sasamoto
Independent External Director
(Audit & Supervisory Committee Member)

Effectiveness of Board of Directors

company, is that there is not enough explanation with a view to the environment outside. Strategic and global-level thinking is required for management team. Therefore, such a way of thinking must be encouraged for developing potential human resources. In addition, interaction from the personnel-affair perspective and job transfer between Development/Production Divisions and Sales Divisions, as well as headquarters and factories, would be effective to develop mid-level executives, and lead to improvement of comprehensive power of the company.

Fujisaki The Company has an issue of a small number of female executives. Recently, female employees of Administration Department serve as a lecturer to provide training programs such as "How to check the financial statements" on the manufacturing site. I expect that, through accumulating new experience, such as activity as a lecturer,

We implement the effectiveness evaluation of Board of Directors through an external organization on a regular basis. Based on the results of FY3/22, President and independent external directors (Audit & Supervisory Committee members) exchanged the opinion on recognition of current issues and future direction.

perspectives of female employees expand, and change of perspectives provides them with capabilities required for leaders.

Goto Although we prepare for building up the next-generation management team through discussion at the Executive Officers meetings, insufficient accumulation of human capital from the sustainable perspective is an emergency issue because management team is understaffed. Strategic investments should be made in human resources education with the purpose of developing management team, and the intent should be announced in the company.

Other mid-term issues

Fujisaki Although the Company faced very harsh business environment, such as COVID-19, the manufacturing site dealt

with cost reduction seriously and the results came to be recognized in a quantitative manner. I strongly feel the power of manufacturing site. On the other hand, the issues on business portfolio and distribution of management resources require future discussion among Board of Directors meetings. To establish a foundation to deal with the issues, I am thinking about developing the qualitative mid-term plan, instead of numerical-value-based quantitative plan, which shows how the Company will contribute to society with its business and how it can realize the happiness of employees. And those plans should be distributed in and out of the company.

Sasamoto I absolutely agree with developing the qualitative mid-term plan, that is, qualitative mid-term vision. It will give the employees a sense of reassurance and be useful on the recruitment site. In early 2000s, the Company's net sales were a little less than ¥3 billion, but grew to ¥10 billion level now. Officers and employees who have worked here since then may know the history of the growth and future direction. However, for employees who joined the Company in the course of the development and our future employee, mid-term vision is important, and helps motivate the employees.

Hiraga On the other hand, the way to announce the direction we aim for in a quantitative manner is always discussed among the Board of Directors meetings. I personally like the Company's conventional attitude of constantly accumulating what the Company should do and let others evaluate the outcome, which is shown as the company's performance result. However, considering the diversity of stakeholders, we have come to the point where such attitude is insufficient. We need a new way of thinking. For example, we may need to disclose the investment plan for the next-generation growth with some quantitative explanation.

Goto Thank you very much for a wide variety of opinions. Due to COVID-19, etc., movement of markets of our users stopped for three years. And we were in the difficult business environment where realization of growth is difficult. During that period, we maintained the capital expenditure, conducted steady cost reduction, and promoted establishment of the new sales structure on the premises of remote operations. For information transmission in the future, we should keep an eye on the business strategies considering the next generation. And, I think business investments, especially those in R&D, should be linked to some level of quantitative plan. In addition, investments in human capital and development policies are important themes that should be promoted in a top-down manner. We would like to deepen discussions on those issues, too, and appreciate your support.

ESG Topics

The Group's sustainability concept and initiatives

Topics 1

Basic Policy on Sustainability and Materiality

From the standpoint of striving for its sustained growth while coexisting with society, in November 2021, the Group formulated its "Basic Policy on Sustainability," which it has disclosed alongside its priority challenges (materiality). Each division of production, development, sales, and administration sets "Materiality KPI*" based

on "Basic Policy on Sustainability" and materiality, and through implementing the PDCA cycle with ISO quality and environmental management system, creates and provides high value-added products while coexisting with society.

*KPI: Key Performance Indicator. Important business target that is scheduled and quantified.

Basic Policy on Sustainability

NS TOOL creates "Software (technology)," "Hardware (machines)" and "Heart (humanity)." We contribute to society by developing eco- and human-friendly products. Through implementing this management policy and providing precise small-diameter end mills to the entire world, we support innovation by corporations and engineers. We also acquired ISO14000 certification in 2004, and have implemented various initiatives over time with awareness of the importance of consideration for the environment. Going forward, the NS TOOL Group will continue to do its part for the development of a sustainable society with harmony among people, society and the environment.

Sustainability Policy

As a leading company in small-diameter end mills, by providing unprecedented high value-added products, we will coexist with society and strive for sustained growth.

Materiality

- 1 Responding to the environmental issues
- 2 Respect for human rights
- 3 Contributions to community and society
- 4 Employee job satisfaction
- 5 Partnerships with suppliers and distributors
- 6 Crisis management for accidents, etc.

For the Group's sustainability promotion system, please refer to the summary of financial results and securities report.

Summary of business results <https://www.ns-tool.com/en/ir/>
 Securities report https://www.ns-tool.com/ja/ir/ir_library/securities_report/

Topics 2

Response to human capital

In relation to the materiality "4. Employee job satisfaction," the Group determined the policies related to human resources development including securing diversity of human resources and

internal environmental improvement policies as follows. And, following the development of both policies, explanation on materiality "4. Employee job satisfaction" was changed as follows.

Policy for human resources development

NS TOOL will develop human resources that put the company credo "Cheerful, Comfortable and Creative," into practice for the growth of the company and individuals.

Internal environmental improvement policy

NS TOOL will improve the organization and internal environment that realizes the company credo "Cheerful, Comfortable and Creative."

Materiality "4. Employee job satisfaction"

"We will provide a workplace environment where all employees are satisfied with their jobs."
 With the purpose of developing the human resources that can put the company credo "Cheerful, Comfortable and Creative," into practice, we improve the working environment in which both the company and individuals can grow through enhancement of training system and constant engagement with employees.

Topics 3

Status of realization of Materiality KPI progress

Regarding the policies related to human resources development including securing diversity of human resources and internal environmental improvement policies, we aim for 4-7 below "As a

company supporting child raising, we try to be certified as 'Kurumin' company in around three years, and raise the ratio of female employees more than 1%."

| Materiality | Materiality KPI | Main division to promote the theme | | | | |
|---|--|------------------------------------|------------|-------|----------------|--------------|
| | | Development | Production | Sales | Administration | Subsidiaries |
| 1. Responding to the environmental issues | 1 Reduce electricity used for production of a piece. | | ◎ | | | |
| | 2 Implement activities for promoting reusing and recycling of the used products. | | | | | △ |
| 2. Respect for human rights | 3 Secure traceability of the raw materials such as tungsten and cobalt. | | | | ○ | |
| | 4 Continue the support for JDFA (the Japan Deaf Football Association) as a special sponsor. | | | | ○ | |
| 3. Contributions to community and society | 5 Start the activity to donate food materials of Tohoku region to children's community kitchen, Shinagawa Kodomo Shokudo Network. | | | | ○ | |
| | 6 Establish internal education programs, enhance employee training system by position | △ | ○ | ○ | ○ | |
| 4. Employee job satisfaction | 7 As a company supporting child raising, try to be certified as 'Kurumin' company in around three years, and raise the ratio of female employees more than 1%. | | | | △ | |
| | 8 Develop the new products, etc. in cooperation with partner companies. | ○ | | | | ○ |
| 5. Partnerships with suppliers and distributors | 9 Increase and improve the production ability of Niigata Factory. | | ○ | | | ○ |
| | | | | | | |

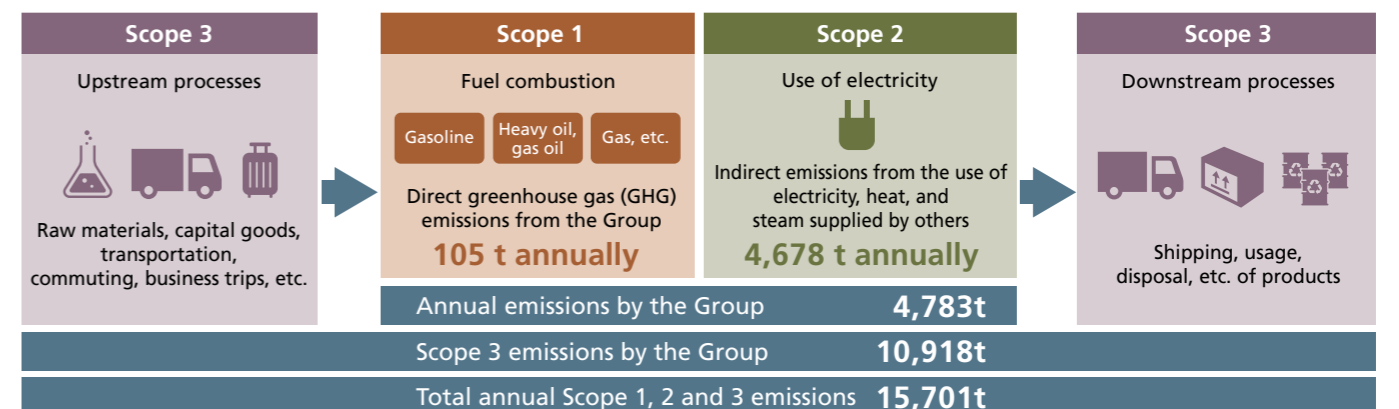
◎...Showing progress exceeding the plan ○...Showing progress roughly as planned △...Showing progress below the plan

Topics 4

Indicators on climate change

Based on the GHG Protocol Standard, the Group calculates Scope 1, 2, and 3 greenhouse gas emissions throughout the supply chain. Scope 1 and 2 emissions totaled 4,783 tons in FY3/22, a decrease of

89 tons compared to FY3/21. The Group has been working on energy conservation by setting targets for reducing power usage, and will continue to work on reducing Scope 1 and 2 emissions.



Introduction of Web Contents

Please visit the following sites to know more about our products and initiatives.



Video These contents will let you easily visualize how the Company's end mills are developed and used.

YouTube / NS TOOL official international

The secret story of "Micro Edge," the end mill with $\Phi 0.1$ mm or less

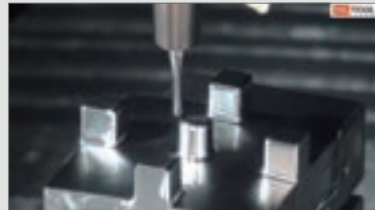


Background of development of the end mills that "can carve letters in a hair"



Precision and micro machining video

Viewers will enjoy the scene of processing the amazing "precision fitting interlocking assembly," like watching the process on the spot.



Examples of finished works processed by our cutting tools

Work examples tailored to workpiece materials and cutting tools chosen are posted here.



NS TOOL was featured.

Monozukuri Taro Channel



NHK WORLD "CATCH JAPAN"



BS Asahi "Tsunagaru Ehon—for SDGs"



SNS We distribute the latest information about exhibitions, new products, etc.



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Facebook



Corporate Data/Stock Information (as of March 31, 2023)

Corporate Data

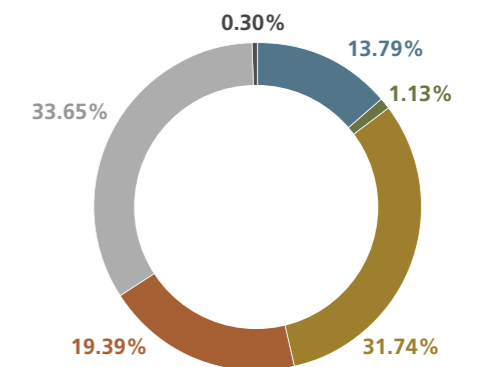
| | |
|---------------------|--|
| Company name | NS TOOL CO., LTD. |
| URL | https://www.ns-tool.com/en |
| Representative | Hiroji Goto |
| Headquarters | 6F. Sumitomo Fudosan Oimachi Ekimae Bldg., 1-28-1 Oi, Shinagawa-ku, Tokyo 140-0014 |
| Established | December 1954 |
| Capital stock | ¥455,330,523 |
| Number of employees | 352 (Consolidated) |
| Business | Manufacture and sale of cutting tools |
| Products | Cemented carbide end mills for molds and parts processing |
| Banks | MUFG Bank, Ltd. and Mizuho Bank, Ltd. |
| Subsidiaries | G-Tech Co., Ltd. NS Engineering Co., Ltd. Makino Industry Co., Ltd. NS TOOL Hong Kong Ltd. NS TOOL USA, INC. |
| Securities exchange | Prime Market of the Tokyo Stock Exchange |

Stock Information

| | |
|-----------------------------|------------|
| Number of authorized shares | 38,400,000 |
| Number of issued shares | 25,035,034 |
| Number of shareholders | 13,846 |

Composition of Shareholders

- Financial institutions (11 shareholders, 3,452,300 shares)
- Financial instruments dealers ... (19 shareholders, 284,023 shares)
- Other corporations (101 shareholders, 7,945,011 shares)
- Foreign corporations, etc. (76 shareholders, 4,852,761 shares)
- Individuals and others (13,638 shareholders, 8,425,073 shares)
- Treasury stock (1 shareholder, 75,866 shares)



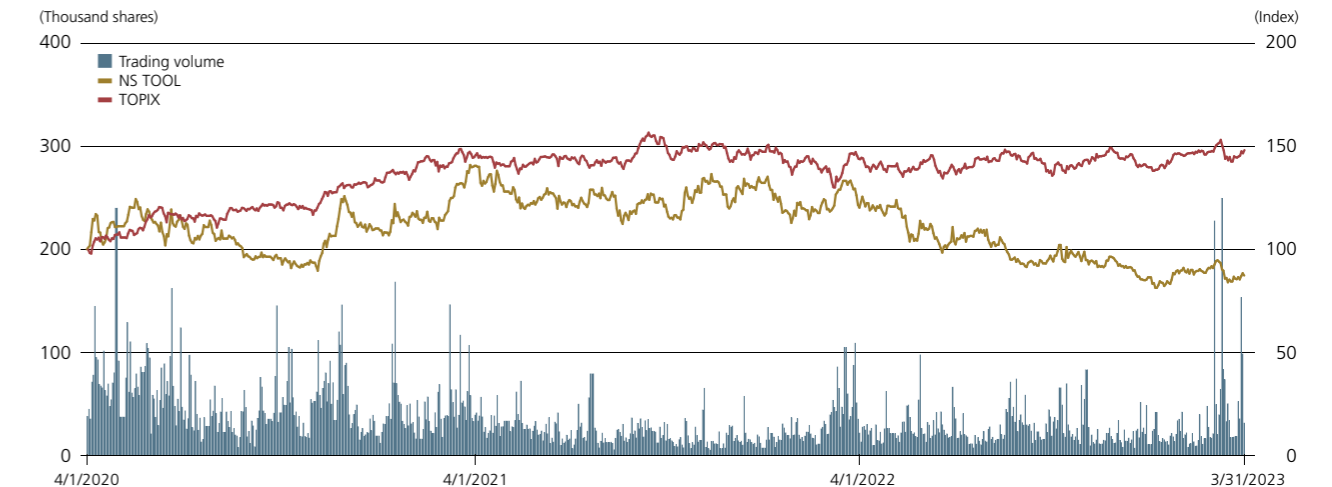
Major Shareholders

| Shareholder Name | Number of Shares Held (thousand shares) | Shareholding Ratio (%) |
|--|---|------------------------|
| M.Y. CORPORATION, Inc. | 2,497 | 10.01 |
| Solpty Co., Ltd. | 2,435 | 9.76 |
| The Master Trust Bank of Japan, Ltd. (trust account) | 2,146 | 8.60 |
| NORTHERN TRUST CO.(AVFC) RE FIDELITY FUNDS (Standing Proxy: The Hongkong and Shanghai Banking Corporation Limited, Tokyo Branch) | 2,028 | 8.13 |
| TI Road Co., Ltd | 1,847 | 7.40 |
| BANK JULIUS BAER AND CO., LTD. (Standing Proxy: MUFG Bank, Ltd.) | 1,293 | 5.18 |
| NORTHERN TRUST CO.(AVFC) RE THE HIGHCLERE INTERNATIONAL INVESTORS SMALLER COMPANIES FUND (Standing Proxy: The Hongkong and Shanghai Banking Corporation Limited, Tokyo Branch) | 1,110 | 4.45 |
| Custody Bank of Japan, Ltd. (trust account) | 867 | 3.48 |
| Hiroji Goto | 663 | 2.66 |
| Takashi Goto | 660 | 2.65 |

Note 1: The number of shares less than a thousand is truncated.

Note 2: M.Y. CORPORATION, Inc., Solpty Co., Ltd. and TI Road Co., Ltd. are asset management companies of Hiroji Goto, Takashi Goto and Yuji Goto, respectively.

Trends of Stock Price/Trading Volume/TOPIX



NOTE: This chart contains split-adjusted stock prices and trading volumes; stock prices and trading volumes before stock split have been adjusted retroactively. NS TOOL's stock prices and TOPIX values are calculated, assuming that the closing price data of April 1, 2020 is 100.

Shareholder Memo

| | |
|---|---|
| Fiscal year | From April 1 to March 31 of the following year |
| General shareholders' meeting | 1. Ordinary general meeting of shareholders: held in June every year 2. Extraordinary general meeting of shareholders: held as needed |
| Shareholder registry administrator Special account administrator | Marunouchi 1-4-5, Chiyoda-ku, Tokyo, Japan Mitsubishi UFJ Trust and Banking Corporation |
| Location of operations | Marunouchi 1-4-5, Chiyoda-ku, Tokyo, Japan Securities Agency Division, Mitsubishi UFJ Trust and Banking Corporation |
| Contact & mailing address | 1-1, Nikko-cho, Fuchu-shi, Tokyo, Japan Securities Agency Division, Mitsubishi UFJ Trust and Banking Corporation 0120-232-711 (toll-free in Japan) [Mailing Destination] PO Box 29, New Tokyo Post Office, 137-8081, Japan Securities Agency Division, Mitsubishi UFJ Trust and Banking Corporation |
| Public announcements | Notices will be posted in electronic format. However, notices will be published in the Nihon Keizai Shimbun (Japanese newspaper) when an electronic notification is not possible for unavoidable reasons. |

Notes:

- (1) In principle, the account administrator with whom you hold an account (e.g., securities firm) receives requests for change of shareholder's address, instruction to purchase, and other operations. Please contact the securities firm, etc. with whom you hold the account. Please note that the shareholder registry administrator (Mitsubishi UFJ Trust and Banking Corporation) cannot handle such matters.
- (2) With regard to operations concerning shares recorded on the special account, Mitsubishi UFJ Trust and Banking Corporation shall serve as the account administrator. Please contact them regarding such shares. Branches of Mitsubishi UFJ Trust and Banking Corporation throughout Japan will assist you as well.
- (3) The main office and branch offices of Mitsubishi UFJ Trust and Banking Corporation will pay dividends not received.

Contact Us

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Shinagawa-ku, Tokyo 140-0014

Tel: +81-3-6423-1135 Fax: +81-3-6423-1186

Email: ir@ns-tool.com



Report on Election of New Director

We are pleased to report that the following new director was elected based on a resolution by the 62nd annual general meeting of shareholders held on June 22, 2023.

Reasons for Electing a New Director

Ms. Nakano has extensive experience and broad insight involving international business through analyzing companies and finance in investment decision-making at asset management companies and providing advice at IR/PR support companies. In addition, the Company expects that she will provide appropriate recommendations and advice in terms of decision-making regarding business execution and supervision from the perspective of propriety and legality based on her experience, insight, and others as an external officer of other companies. For these reasons, we have decided to appoint Ms. Nakano as external director (audit & supervisory committee member).



Hideyo Nakano

Independent External Director
(Audit & Supervisory Committee Member)

Profile of New Director

| Name (Date of Birth) | Biography |
|--|---|
| Hideyo Nakano (September 13, 1959) | <p>Nov. 1991: Vice President of Cititrust & Banking Corporation</p> <p>Oct. 1993: Senior Portfolio Manager and Head of Private Investment of Cititrust & Banking Corporation</p> <p>Jan. 2000: Director and Head of Investment Division of FuNNeX Asset Management Inc.</p> <p>Mar. 2004: Founded Trias Corporation, CEO (present post)</p> <p>Mar. 2020: External Director, OUTSOURCING Inc.</p> <p>Jun. 2021: External Director of HOCHIKI CORPORATION (present post)</p> <p>Jun. 2022: Outside Director of DKS Co. Ltd. (present post)</p> |

Reference: Directors on and after June 22, 2023

Hiroji Goto

Director

Takashi Goto

Director

Yuko Adachi

Director

Satoru Toda

Director

Hiroshi Tajima

Director (Audit & Supervisory Committee Member)

Kazuo Fukuda

Director (Audit & Supervisory Committee Member)

Naoko Fujisaki

Independent External Director (Audit & Supervisory Committee Member)

Toshiaki Hiraga

Independent External Director (Audit & Supervisory Committee Member)

Kenichi Sasamoto

Independent External Director (Audit & Supervisory Committee Member)

Hideyo Nakano

Independent External Director (Audit & Supervisory Committee Member)