



*shaping your dreams*

# OSG Report 2019

Fiscal year ended November 2019



**OSG Corporation**

# Always moving forward toward new achievements based on reliable technology enabled by creativity and innovation

OSG products are vital for the processing of parts used in manufacturing by industry such as automotive and aerospace. Because human safety can depend on a single screw connection, advanced technology is essential to ensure reliability and dependability. OSG tools have a reputation for advanced engineering capabilities and are preferred by manufacturers worldwide. Even in this time of rapid change, we will continue to monitor trends carefully and meet ambitious new challenges as we make progress in each link of our supply chain.

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### Editorial Policy

The OSG Report is published primarily for investors. As an integrated report, it encompasses management strategies for medium- to long-term growth, and information about the environmental, social, and governance (ESG) systems on which our growth is based, together with results and financial information for the fiscal year ended November 2019.

Various information about OSG is also available on our corporate website. We hope that this report and the information on the website will help readers to achieve a fuller understanding of our activities. We will continue our efforts to provide editorial content that meets readers' expectations

### Disclaimer Regarding Forward-Looking Statements

Apart from information based on historical facts, all references in this report to plans, strategies, forecasts, or management initiatives pertaining to the future business performance of OSG are forward-looking statements and as such represent assumptions and judgments based on information currently available. Actual results may differ from the results predicted in this report due to various factors, including trends in the economic environment in which OSG operates, product demand and price trends, the development of new products, sales, raw material prices, and exchange rate fluctuations.

Our Value Creation Story

# VISION

## Tool Communication

OSG's products are created through communication with our customers. Communication is indispensable to our ability to supply products and services that truly meet customers' needs, and to our continuing efforts to develop better products.

## Global Presence

As a comprehensive cutting tool manufacturer, we make products that at a fundamental level contribute to enhancing people's quality of life. Through continuous growth, we have established a production, sales, and technical support network spanning 33 countries. Our corporate aim is to continue to expand our operations globally and strengthen our contribution to the manufacturing industries in the world.

## shaping your dreams

We want to give shape to the aspirations of every customer. That goal motivates us to continue taking up new challenges as we work to support manufacturing industries worldwide.



# HISTORY

## Global growth through the development of original technologies and sales channels

Since its establishment in Tokyo in 1938, OSG has grown in the global cutting tool market by developing a variety of original technologies, including technology for tap grinding with grindstones, and by building overseas sales channels. The driving force that has enabled us to create advanced technology and build a global network spanning 33 countries is the unique OSG spirit of meeting and overcoming every difficulty and challenge. We will continue to take up new challenges on our path to even greater success and growth on a global scale.

**1938**



Hideo Osawa established OSG Grinding Co., Ltd. in Tokyo and began manufacturing and selling taps and dies.



**1963**



The company began to manufacture rolling flat dies.



**1968**



OSG Tap and Die (USA) (now OSG USA, Inc.) was established.



**1969**



Taiho Tool Mfg. Co., Ltd. (Taiwan) was established.

**1970**



The company began to manufacture HSS end mills.



**1974**



OSG Ferramentas de Precisão Ltda. (Brazil) (now OSG Sulamericana de Ferramentas Ltda.) was established.



**1981**



OSG was listed on the First Section of the Tokyo and Nagoya stock exchanges.

**1984**



OSG began to manufacture drills.



**1985**



OSG Korea Corporation was established.

**1992**



OSG Manufacturing Company and OSG Corporation merged to form OSG Corporation.

**1994**



OSG Royco, S.A. de C.V. (Mexico) was established.

**1996**



OSG Thai Co., Ltd. (Thailand) was established.

**1997**



OSG Europe S.A., the holding company for Europe (Belgium) was established.



**2000**



Nine business sites in Japan were certified under ISO 14001.

**2001**



OSG (Shanghai) Co., Ltd. (China) was established.



Net sales  
**¥126.9**  
 billion

(Billions of yen)  
 150



**2003**   
 OSG GmbH (Germany) was established.



**2003**   
 OSG Italia S.R.L. was established.

**2004**   
 The Design Center was established.



**2005**   
 OSG (India) Pvt, Ltd. was established.

**2006**   
 The Global Technology Center was established.



**2007**   
 All OSG products were certified under ISO 9001.

**2007**   
 PT. OSG Indonesia was established.

**2008**   
 OSG Vietnam Co., Ltd. was established.

**2008**   
 OSG Philippines Corporation was established.

**2010**   
 OSG Phoenix indexable tools went on sale.



**2012**   
 OSG Turkey Kesici Takımlar Sanayi ve Ticaret A.Ş. was established.



**2015**   
 Desgranges Outils Coupants S.A. (France) was acquired.



**2016**   
 Amarco Tool & Supply Co., Inc. (USA) was acquired.

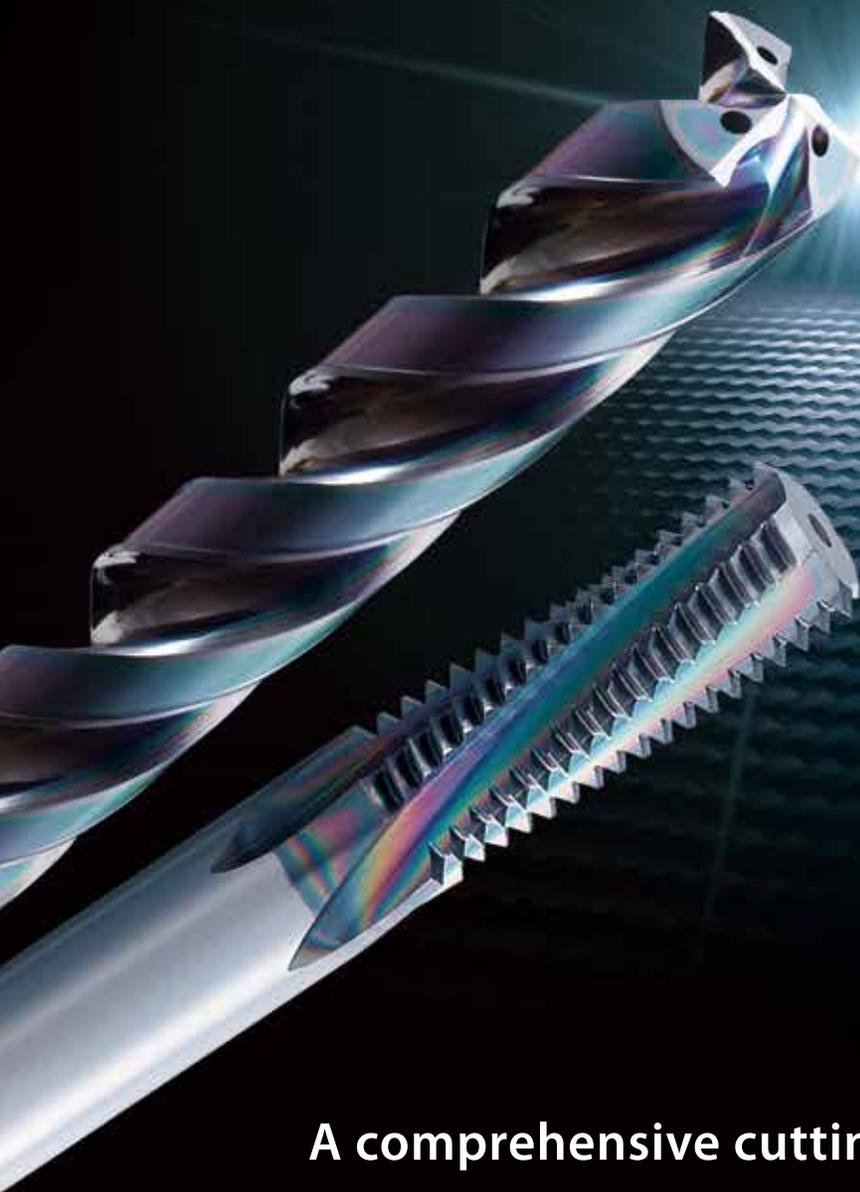


**2017**   
 The D-Lab was established.



Our Value Creation Story

# PRODUCTS



## DRILLS

Drills are hole-cutting tools used in the production of automotive parts and other products that require advanced processing techniques. OSG is focusing on the expansion of sales of carbide drills for high efficiency processing and the drilling of difficult-to-cut materials.

## TAPS

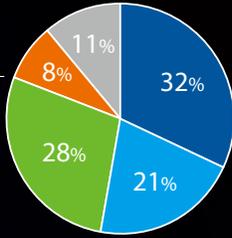
Taps are used to cut "female" screw threads on the inside surfaces of holes. They are vital for the processing of precision screws, such as those used in automobile engines, and have been flagship products for OSG ever since its establishment.

## A comprehensive cutting tool manufacturer with the global top market share for taps

OSG is a comprehensive tool maker. In addition to having the highest market share in the world for taps, we manufacture and sell drills, end mills, rolling dies, and various other products. Known for our high standards of precision and efficiency, OSG offers a total range of 100,000 items, including many products that are the first, best, and fastest of their types in the world. These tools are used worldwide by manufacturers in industries ranging from automotive and aerospace to precision parts to molds and dies. We will continue to enhance our capacity for innovation, which is key to our ability to respond effectively to user needs by creating and supplying high-added-value products that combine world-class quality with competitive products.

### Net sales by Product Category

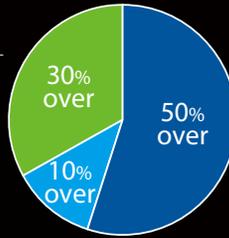
- Taps
- End mills
- Drills
- Rolling dies
- Other



[Fiscal year ended November 2019]

### Net sales by Industry

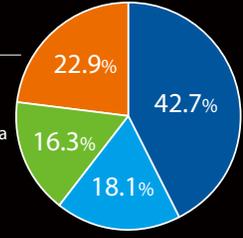
- Automotive industry
- Aerospace industry
- General industry (Precision parts, Mold, etc.)



[Fiscal year ended November 2019]  
\*Estimate

### Net sales by Region

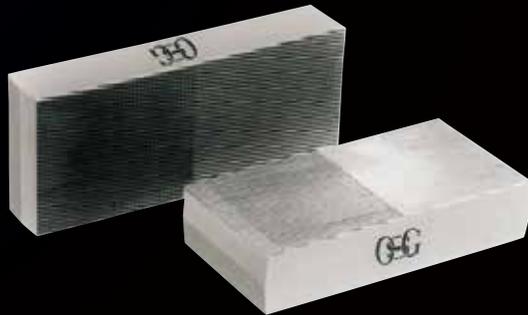
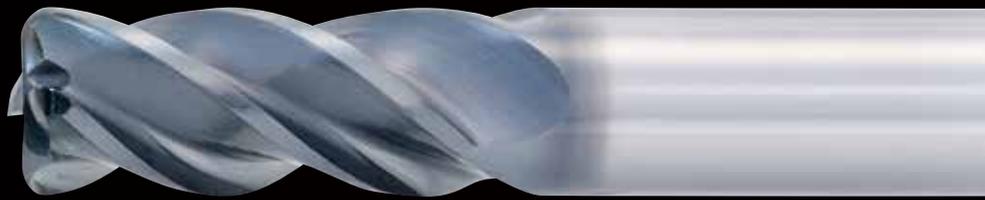
- Japan
- The Americas
- Europe and Africa
- Asia



[Fiscal year ended November 2019]

## END MILLS

End mills are used to create shapes by cutting away metal. They are able to cut and contour molds for plastic parts, primarily for home appliances, die-casting dies for automotive parts, stamping molds, and the processing of aircraft parts.



## ROLLING DIES

Rolling dies are used to form threads on round bars and are also applied to the production of automotive parts. OSG is working to expand its sales of counter-flow rolling dies.

## INDEXABLE TOOLS

Indexable tools, which are cutting tools with exchangeable blades, are used to cut metal to produce dies and mechanical parts. While end mills are used for finishing, indexable tools are intended for roughing.



## GAUGES

Gauges are used to measure the accuracy of threads, holes, and other parts. Accuracy inspection has become an extremely important process because of the trend toward increasing product precision and compliance with international standards.



# VALUE CREATION

## Maximizing OSG's social and economic value through

### Our Capitals

- 
**Human capital**  
 Consolidated work force: **7,236**  
\*As of November 30, 2019
- 
**Brand**  
 Over **30%** of the world market share for taps  
\*Based on our estimate
- 
**Manufactured capital**  
 Manufacturing plants in **17** countries
- 
**Sales capital**  
 Sales bases in **33** countries
- 
**R&D capital**  
 Technical centers in **7** countries
- 
**Social capital**  
**88** affiliated Group companies
- 
**Financial capital**

Net sales	¥ <b>126.9</b> billion
Overseas sales ratio	<b>57.3%</b>
Interest-bearing debt	¥ <b>26.7</b> billion
EBITDA	¥ <b>29.0</b> billion

\*Fiscal year ended November 2019

### Value Creation

**Business model driving value creation**

The power of OSG lies in our assured innovative technological know-how for producing high-quality and high-performance products; our exceptional services to respond to situations diligently; and our out-of-the-box thinking to provide total solutions that anticipate our customers' needs.

We are committed to contribute to the advancement of the manufacturing industries by shaping our customers' dreams into reality.

**Key strengths maximizing value creation**

- Excellent Corporate Culture
- Integrated Production Structures

**Supply chain collaboration: Leveraging our strengths**

```

    graph LR
    A[Design/Development] --> B[Orders]
    B --> C[Procurement]
    
```

**Foundation for**

- Corporate Governance
- ▶ P. 20–23**

# original value creation processes

## Process



▶ P. 16

Platform Sharing

Global Network

▶ P. 17

Manufacturing/  
Quality

Logistics/Sales

After-sales  
service

## Value Creation

Social/Environmental Initiatives

▶ P. 26–29

## Our Goals

In line with the philosophy embodied in the Sustainable Development Goals (SDGs), the OSG Group aims to contribute to sustainable social development through its business activities.



Social value

*shaping your dreams*

We want to give shape to the aspirations of every customer. That goal motivates us to continue taking up new challenges as we work to support manufacturing industries worldwide.

Economic value

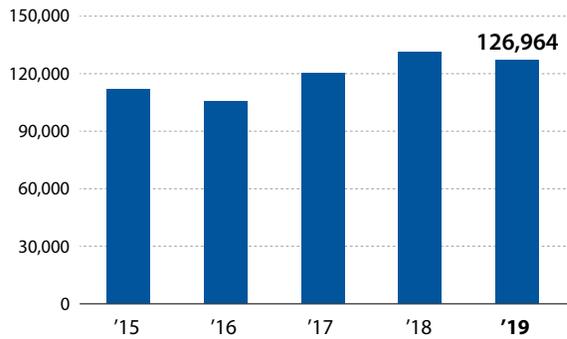


We aim to be the world's leading manufacturer of hole-making cutting tools.

# Financial and Non-Financial Highlights

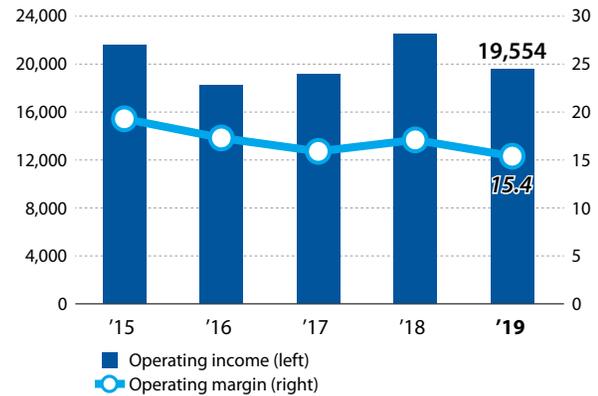
## Financial Highlights

Net sales (millions of yen)



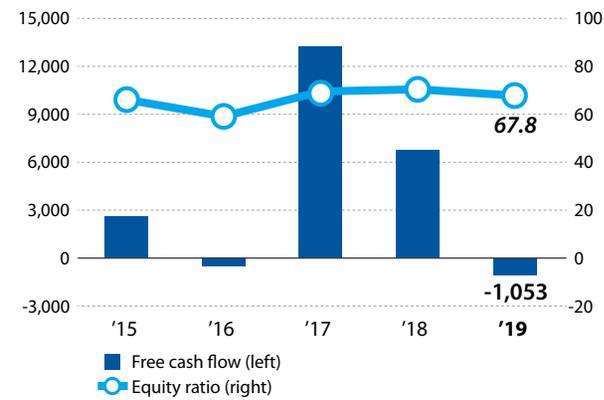
Operating income (millions of yen)

Operating income margin (%)

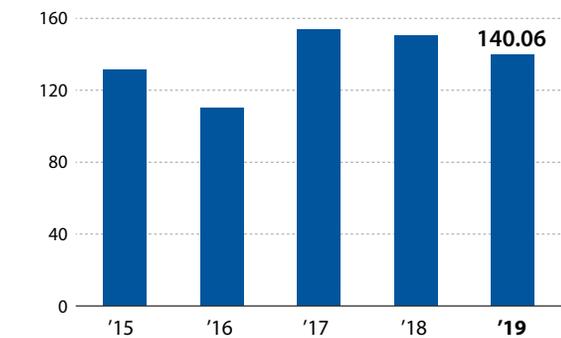


Free cash flow (millions of yen)

Equity ratio (%)



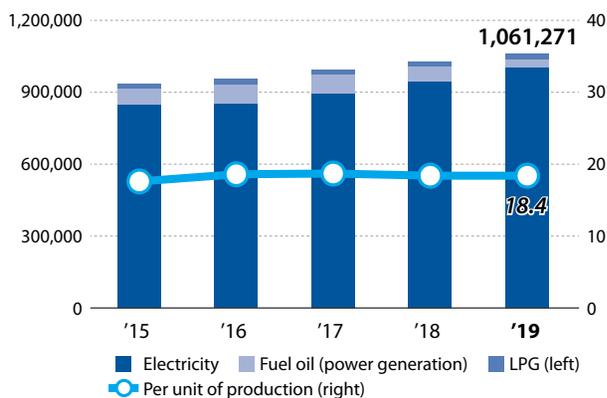
Earnings per share (EPS) (yen)



## Non-Financial Highlights

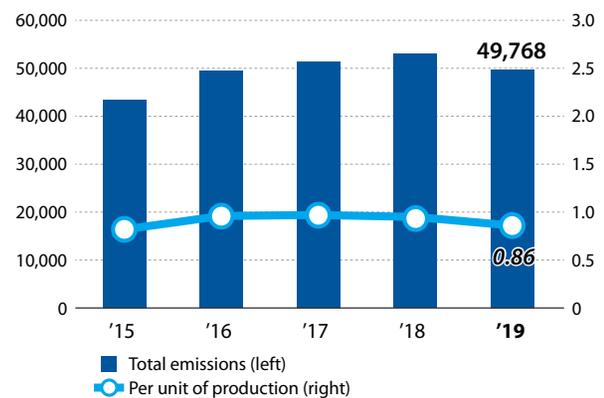
Energy consumption (GJ)

Energy consumption per unit of production (GJ/million yen)

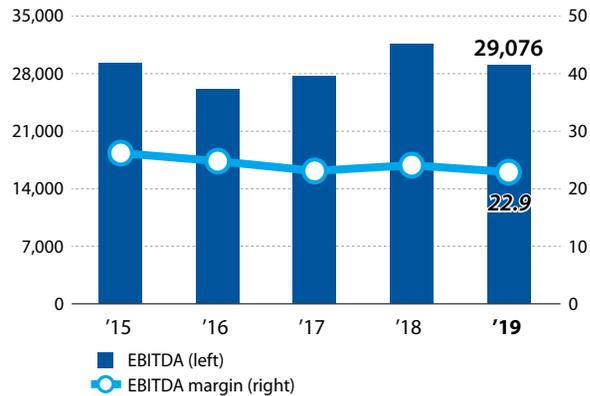


CO<sub>2</sub> emissions (t)

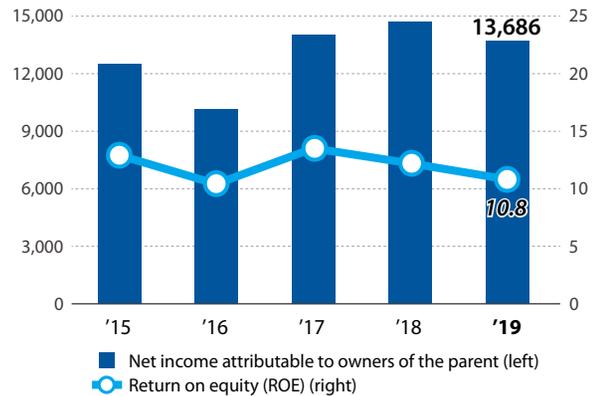
CO<sub>2</sub> emissions per unit of production (t/million yen)



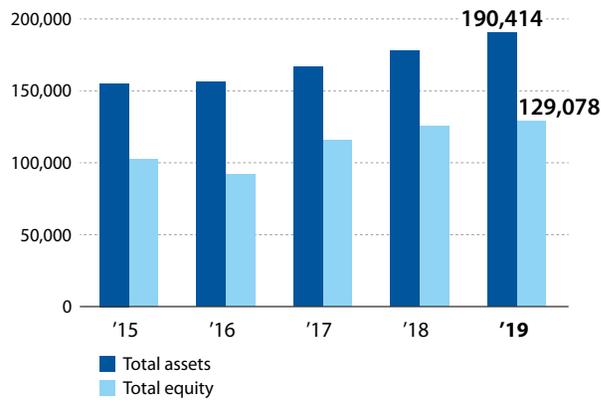
EBITDA (millions of yen)  
EBITDA margin (%)



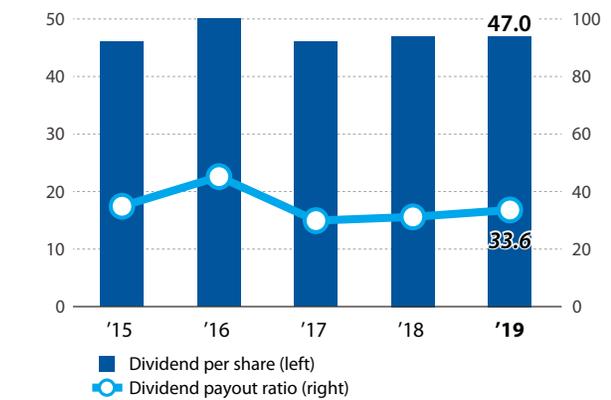
Net income attributable to owners of the parent (millions of yen)  
Return on equity (ROE) (%)



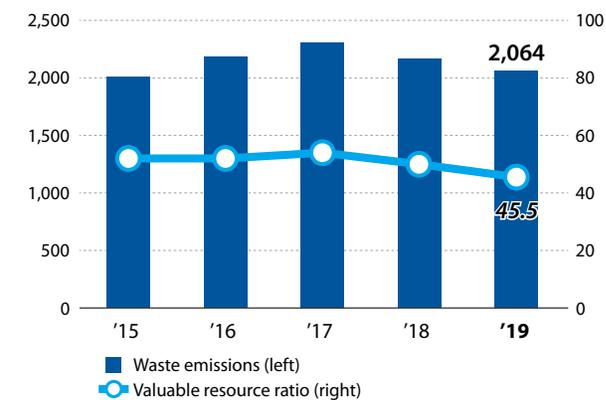
Total assets (millions of yen)  
Total equity (millions of yen)



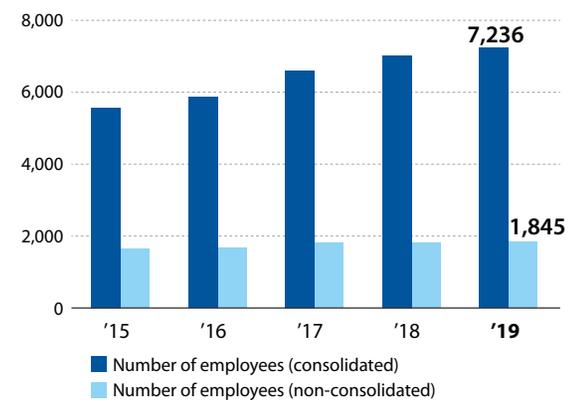
Dividend per share (yen)  
Dividend payout ratio (%)



Waste emissions (t)  
Valuable resource ratio (%)



Number of employees (consolidated) (persons)  
Number of employees (non-consolidated) (persons)



# Creating New Value

We will adapt to a changing business environment and work to achieve further growth through growth strategies targeting both the expansion of existing business activities and the development of new fields of business.

## Further Growth and Success

### “Three Firsts” Our Keys to Success in a Rapidly Changing World

Our business environment continues to change, and the pace of change is likely to accelerate going forward. We need to adapt to a spectrum of major changes, including advances in digital technology, such as the Internet of Things and AI, the trend toward electric vehicles, and the diversification of needs. In this changing environment, we aim to build an unshakeable position for OSG as the world's leading manufacturer of hole-making cutting tools. The entire OSG Group is working together to achieve this goal by strengthening our global competitiveness, by enhancing the added value of our products, and by creating new business models based on our services and solutions.

These efforts are focused toward a concept that we call the “three firsts.” First, we are determined to achieve “global first” status by constantly maintaining a global perspective as we enter a new growth phase centered on overseas markets. Second, we will maintain an “order first” strategy in



A handwritten signature in white ink, which appears to read "Norio Ishikawa". The signature is fluid and cursive.

Norio Ishikawa  
President and CEO

both sales and manufacturing, based on our awareness that the quickest way to attract orders from customers is to give first priority to the solution of customers' problems. Third, we will adopt a "front first" strategy focusing on frontline activities based on direct contacts with overseas customers, rather than the frontline operations managed by the parent company. With every individual employee aware of the "three firsts" and committed to our spirit of challenge, we will move forward with our continuing efforts to compete in the global market and capture new demand all over the world. I am confident that this is the best path to the further growth and success for OSG.

#### **"The Next Stage 17" Medium-term Management Plan**

##### **Major End-users Strategy and Catalogue Item Sales Strategy**

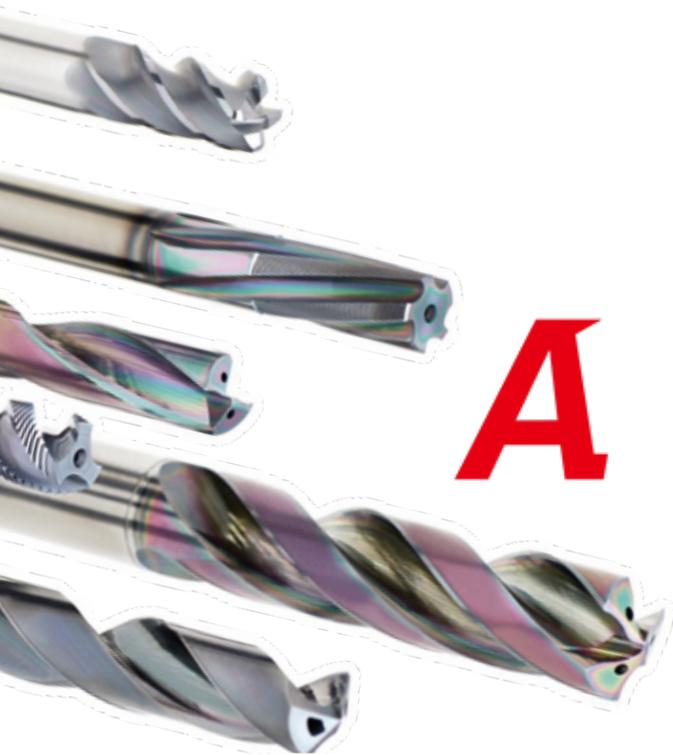
The fiscal year ended November 2019 was the third year of "The Next Stage 17," the medium-term management plan that will culminate in the fiscal year ending November 2020. We continued to make progress toward our targets under this plan through multifaceted initiatives based on our major end-users strategy and catalogue item sales strategy.

Under the major end-users strategy, we propose tools and processing methods optimized for specific customer needs. We have won more orders than expected through this strategy, which focuses both on the automotive industry, which is our core market, and our second core area, the aerospace industry. In the aerospace industry, OSG is building a reputation for highly competitive products backed by advanced technology. Our growing presence in this market is apparent from the fact that we are recognized as a core Tier 1 member of the Advanced Manufacturing Research Centre (AMRC) of the United Kingdom, having joined in 2013. We are also starting to harvest significant benefits from our business policies in this area, including sustained sales efforts and M&A activities. For example, in the fiscal year ended November 2019 we commenced research and development activities with partner companies.

Our focus under the catalogue item sales strategy is to

help our customers to achieve productivity improvements by supplying tools that provide superior cost performance. In addition to increased sales of the A Brand series of high-performance tools, this strategy has also been very successful in expanding the "A-Club" distribution organization worldwide. The network has spread to many countries, resulting in sustained progress toward the establishment of an integrated global brand.

These two basic strategies have been accompanied by the continual evolution of our frontline operations. In the Americas, we have strengthened production operations at each location, allowing us to reap the benefits of local production for local consumption. Many of the rolling dies that we produce in the United States are heavy products. Because of the high transportation costs involved, significant cost reductions can be achieved through local production for local use. Rolling dies are used in the manufacture of automotive parts, such as drive shafts and constant velocity joints, which are also used in electric vehicles. We plan further increases in local production of these items. Our manufacturing operations in Canada are now operating profitably thanks to a shift to local production of carbide end mills, which were previously imported from the United States. Economic conditions in China are difficult, but our customer base there is increasing thanks to the expansion of sales channels and the use of the Technical Center. I believe that we can look forward to growth in the future. In Taiwan, our Group company, Taiho Tool Mfg. Co., Ltd., celebrated the 50th anniversary of its founding and achieved its goal of becoming a wholly owned subsidiary. Taiho Tool Mfg. mainly produces taps, gauges, and rolling dies. They are expected to achieve growth in the expanding Taiwanese market by using Japanese and Taiwanese technologies in a wide range of activities, including its own drill regrinding and coating processes, as well as the manufacture of new carbide tools. In Southeast Asia, orders are expanding in Vietnam, Indonesia, Thailand, and Malaysia, and all of our plants in the region are now operating profitably. We are also expanding the scope of our business operations in India, including the introduction of coating services at two plants. In Europe, we

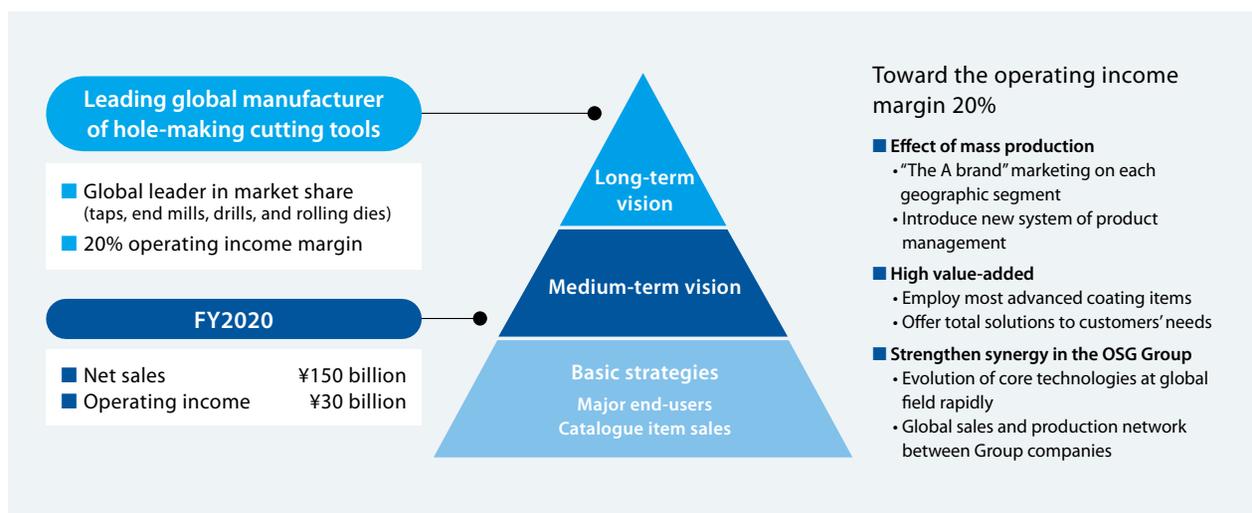


have acquired numerous companies through M&A, and our focus going forward will be post-merger integration (PMI). Europe has the potential to yield greater sales growth than North America.

Demand for regrinding and recoating services has expanded dramatically in recent years. We have made this a priority area, and projects to expand our capacity are progressing ahead of schedule. Our efforts to enhance after-sales services are also producing excellent results.

Economic conditions remained buoyant in the first half of 2019, but the situation was reversed in the second half as trade friction between the United States and China triggered a rapid slowdown in markets for production goods. The first-half results for the OSG Group included new records for both sales and profits. However, the slowdown in the second half had a major impact throughout East Asia, including Japan, and economic performance was also affected by exchange rate fluctuations. This situation caused a downswing in our business performance. I would characterize 2019 as a year in which these developments gave us a new awareness of the importance of implement-

The Next Stage 17



ing measures that are appropriate for the conditions and creating structures that allow us to maintain steady forward momentum.

Because of the challenging conditions, the goals set down in our medium-term management plan are unlikely to be achieved until the fiscal year ending November 2021 or later. However, our basic strategies for sales, technology, manufacturing, and management are based on global perspectives, and we will continue to focus all of our resources toward the capture of new demand in world markets.

### Improving Productivity

#### Digitalization Initiatives Centering on the NEO Shinshiro Factory

In the fiscal year ended November 2019, work began in earnest on a project that will revolutionize our production structures. The NEO Shinshiro Factory, which is currently being built in the grounds of the Shinshiro Factory, will become operational in May 2020. We plan to transfer production lines for carbide drills from the Oike Factory and

carbide taps from the Yana Factory.

At the same time, we are working to improve productivity through the company-wide OSG 4.0 Project. The aim of this digitalization project is to enhance our ability to win orders and maximize our profits through productivity and output improvements achieved by making all of our sales, manufacturing, design, and customer management systems available for use through our own unique database, the OSG Product Data Management (OPDM) System.

The NEO Shinshiro Factory will be the starting point for a chain reaction that will result in the digitalization of all processes from production planning, operations monitoring, and inventory management to after-sales services, in all of our plants. By digitally linking all of these processes, We will accelerate the introduction of automation and labor-saving systems, leading to the development of “smart line” systems capable of operating for 72 hours without human intervention. We will also plan to integrate production management, budgeting, and scheduling at key factories in Japan and overseas under the “One Factory” concept.

## Basic Strategies

### Major end-users

- Focus on the automotive industry
- Position the aircraft as a key industry as the automotive
- Develop new end-users in future fields

How?

Face more customers, and suggest total solutions to meet their demands

- “Best delivery time” and “Cost competitiveness”
- Expand technical centers globally
- M&A (maximize synergy effect)

### Catalogue item sales

- For more customers in the industry of general engineering and mold & die all over the world

How?

Contributing to customers’ productivity by providing cost-performance tools in a timely manner

- Expand carbide items range
- Establish strong “A-Club” distribution networks in each region
- Strengthen inventory policy and supply chain

### Our Path to Global Growth

#### Maximizing M&A Synergies, Taking Up the Challenge of New Fields, Businesses, and Products

Our M&A strategy for the OSG Group has the dual goals of expanding sales channels and increasing the scope of our activities. The consolidated group has grown to more than 80 companies with over 7,000 employees. The companies that we add to the Group through M&A are involved in product areas that are slightly different from OSG's product genres. This allows us to increase our market shares in existing business areas while further expanding our product lineup. We see this as the path to sustainable growth in a changing business environment.

After acquiring companies, our next priority is post-merger integration (PMI). To maximize the synergy benefits of mergers, we have designated the fiscal year ending November 2020 as a milestone year for our M&A strategy and the start of a new phase in which we will focus on the integration of the companies that we have acquired on all levels, including management, operations, and attitudes.

As a part of our research and development strategy, we plan to build a research facility in the grounds of the Oregon Manufacturing Innovation Center (OMIC), a Boeing-led research organization in Oregon, U.S.A., which we joined in 2017. Anticipated roles for this facility, which we aim to complete by the end of 2020, include the development of cutting tools suitable for processing materials used in next-generation aerospace parts, and the provision of after-sales services, such as tool coating.

We also established a new internal organization, the Application Sales Team, and launched a new initiative to promote the use of OSG products on machine tools. The new team will work with machinery trading companies and manufacturers, major users, and distributors to propose total solutions for customer needs. The aim of this approach is to differentiate OSG from its competitors, leading in the medium- to long-term future to the improvement of our corporate value and the expansion of our market share.

### Human Resource Development

#### Educational Structure to Meet Current Needs

We see people as valuable assets. We are working to enhance frontline skills by training people with the ability to succeed and contribute in a global arena. Our Personnel Team, which was previously attached to the General Affairs Department, has been restructured into the Human Resources and General Affairs Department, which is now leading our efforts to train skilled employees. Going forward, our priority will be to create an educational structure that will not only provide training in areas relating to skills and performance, but will also help every employee to assimilate the OSG management philosophy and the "three firsts" concept that I referred to at the start of this message.

As in the world of sport, competition among top players is vital to the training of talented people. Competition inevitably leads to the improvement of each individual's skills. We want to maximize the potential and performance of every front office and back office team. We also aim to create working environments characterized by open communication and mutual respect, as arenas for friendly competition.

### Financial and Capital Strategy

#### Combining Proactive Growth Investment with Returns to Investors

With an equity ratio of 67.8%, I believe that OSG has a sound financial structure. While aiming for a return on equity (ROE) above 10%, we also strive to achieve a good balance in our profit distribution, between strategic growth investment and the maintenance of financial soundness, and investor returns. Our priority for profit distribution is growth investment targeting improvement in our medium- to long-term corporate value.

In fiscal 2019, we commenced a major investment program that will update our production structures. The main focus of this approximately ¥17 billion program will be the expansion of our production capacity in Japan and

overseas. We have actively invested in future growth through various projects, including the construction of the NEO Shinshiro Factory, and the introduction of “smart line” systems at our main production facilities. We have also expanded existing core business operations, implemented initiatives to capture new demand, and expanded our research and development capabilities.

We plan several M&A initiatives in 2020. Because these require large amounts of cash, we will base our capital policy on flexible financing. Also, since we include goodwill in our accounts each year, we believe that one of the keys to securing and improving profits is the early achievement of synergy benefits through productivity improvement initiatives, such as PMI and the OSG 4.0 Project.

We recognize the distribution of profit to shareholders as a vital management priority. Our basic policy on profit distribution is to maintain a consolidated payout ratio of 30% or higher, while taking cash flow, our financial position, and other factors into consideration. We have set the dividend for the fiscal year ended November 2019 at ¥47 per share, consisting of an interim dividend of ¥23 and a final dividend of ¥24.

### To Our Stakeholders



Today, companies face a wide range of social expectations and responsibilities, and the roles that businesses play have become increasingly important. Environmental, Social, and Governance (ESG) initiatives are vital to OSG’s goal of achieving sustainable growth as an admired and truly global company.

Our environmental initiatives are guided by our commitment to the development of eco-friendly products. The entire OSG Group is working toward the creation of a sustainable society through activities that include the development and proposal of environmentally sound products and technologies, resource and energy conservation across all processes, waste reduction, and the recycling of carbide materials.

## We aim to improve our corporate value by actively investing in growth.



OSG is also working to fulfill its social responsibilities. We have implemented various measures to maximize the potential of our employees, who are our single greatest management resource. In addition to the introduction of flextime and childcare leave systems, we are also continually improving our office environments to provide comfortable working conditions. Furthermore, we engage in a wide range of social contribution activities in line with our commitment to co-creation with local communities.

Our approach to corporate governance is based on the principles contained in the Corporate Governance Code. We are continually developing and improving our highly effective corporate governance systems, and we have enhanced the transparency, independence, and management oversight capabilities of our governance structure by maintaining a clear demarcation between management supervisory bodies and the executive organization.

The spirit of challenge has been part of OSG’s DNA since its founding. Our ongoing challenge is to contribute to sustainable social development while achieving further growth in our corporate value on a global scale through the provision of high-quality, high-added-value cutting tools. We look forward to the continuing support and understanding of all stakeholders.

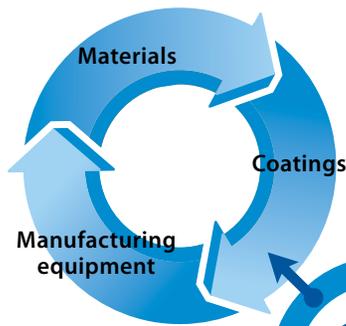
We will work toward further  
by leveraging our value creation capabilities in

# STRENGTH

Strengths that help to maximize value creation

## Integrated Production Structures

The OSG Group procures carbide materials used to create our high-added-value products in-house, and we also develop our own coatings to enhance the durability of our tools. By fabricating our own equipment, we have been able to create flexible production structures and achieve high productivity.



## Platform Sharing

OSG has tangible and intangible assets that can be used throughout the entire Group. OSG Group companies around the world can share our unique platforms, including our coating technologies, test cutting experience, and accumulated know-how for improving our customers' productivity.



Since establishing its first overseas subsidiary in the United States in 1968, OSG has built a network of sales offices in 33 countries. This network allows us to identify trends in the global cutting tool market while also monitoring customer needs through our local sales activities.



Management insights have enabled OSG to cultivate an excellent corporate culture. By maintaining and improving this corporate culture, we can facilitate post-merger integration (PMI) and create a lot of synergy with new Group companies.



## Global Network

## Excellent Corporate Culture

improvement in our corporate value  
conjunction with the reach of our supply chain.

# SUPPLY CHAIN

Supply chain collaboration that leverages strengths



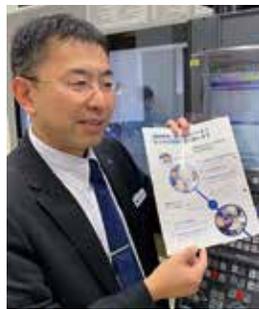
CASE STUDY

# 01 » Creating added value through cross-process collaboration

Collaboration across process boundaries allows us to maximize performance and customer satisfaction. OSG will continue to achieve growth through the creation of unique added value in this way.



## Notable Viewpoints of Key Players



**Tsuyoshi Fukaseko**  
Application Sales Team

### Manufacturing, engineering, and sales personnel work together as one team.

OSG's manufacturing, engineering, and sales personnel have worked together as a single team to expand our market share in Japan and globally. Our business environment is now evolving rapidly, and we will be unable to keep pace with this change using the methods of the past. We need to modify our approach to a changing environment.

In addition to our traditional proposal sales method based on collaboration with customers, the Application Sales Team also actively offers solutions that help to enhance customers' new developments and processing methods through closer engagement with the machinery and peripheral equipment industries, as well as support for tool layouts when

new equipment is installed. Thanks to our solutions-based sales approach, we expect to be able to capture many new projects and build new customer relationships even in a challenging business environment.

To continue responding effectively to our customers' expectations, we need to maintain cooperation between our Technical Application Support Group and Engineering Department, with manufacturing, engineering, and sales staff working together as one team. We will take up the challenge of further expanding our market in Japan and overseas, by enhancing our ability to meet the needs of our customers in Japan and worldwide, and by further accelerating our global growth.



**Takehiro Sasahara**  
Technical Application Support Group, Design Center

### We use processing technology to provide solutions to customers' problems.

The task of the Technical Application Support Group is to find solutions for processing problems in response to customer requests received through OSG sales staff. We offer processing solutions. We also help customers to introduce new processing technologies with confidence by not only selecting tools and calculating cutting conditions according to the processing environment, but also by testing the proposed solutions using machine tools in the Technical Support Center.

Recently we have been collaborating more frequently with the Application Sales Team, which handles the mounting business\*. If a customer is considering entry into an industry, we can utilize the knowledge and expertise that we have accumulated through our work with a wide range of industries, including the automotive, aerospace,

construction equipment, and medical fields, to select the right tools and provide a wide range of technical support covering everything from machine tools to peripheral equipment.

There is strong overseas demand for this type of technical support. With our center in Japan acting as the mother facility, we have established technical support centers in six bases—the United States, Mexico, Germany, Taiwan, China, and South Korea. We will continue to expand our global network so that we can help our customers to give shape to their dreams by using OSG's original processing technologies to solve their metal processing problems.

\*Mounting business: Through this service, we match machinery with tools to provide customers with the processing technologies that they need.



After-sales service bases

Regrinding sites **21** countries and regions

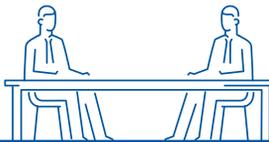
Coating sites **14** countries and regions

CASE STUDY

# 02 Providing value that exceeds customer expectations through after-sales service

Regrinding and coating technologies not only improve customer productivity and reduce costs, but also reduce environmental loads by enhancing tool performance and life span.

We are determined to capture this expanding global demand for regrinding and coating services by offering greater value in this area.



### Notable Viewpoints of Key Players



**Mitsuyoshi Hikosaka**  
Representative Director  
OSG Coating Service Co., Ltd.

#### We will continue to take on global challenges in the spirit of "Never Say Never."

Coating is a processing industry. OSG Coating Service Co., Ltd. (OCS), which was spun off from OSG Corporation in 2001, was established to handle coating for OSG's in-house business operations and also to expand external sales as a coating contractor.

Today the contract coating market has expanded to include various fields, including not only cutting tools but also molds and dies, machine parts, medical equipment, and decorations. OCS started its business from scratch, but our origin as the coating division of a cutting tool manufacturer gave us a major advantage over our competitors because of our extensive knowledge of cutting tools.

This advantage allowed us to outperform our competitors on various levels, including product quality, development capabilities, and our ability to offer solutions to problems. We have used that knowledge and expertise to expand our business in Japan by focusing primarily on developing the previously untapped market for the recoating of cutting tools after regrinding. We are now moving ahead with initiatives to expand our Japanese business model globally.

The motto of OCS is "Never Say Never." We will continue to expand our business by taking up challenges in every field of business, especially aftermarket services.



# Corporate Governance

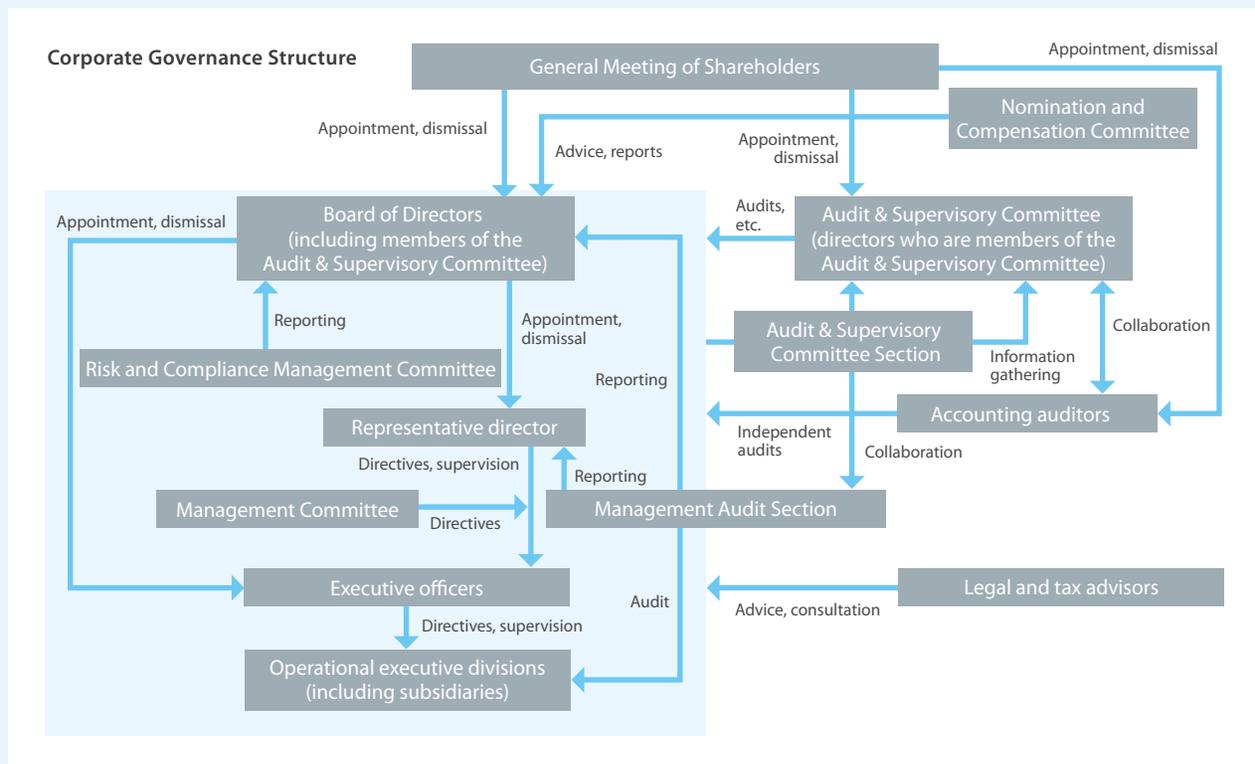
We will continue to develop a highly practical corporate governance structure and enhance our systems.

## Basic Philosophy

Under our corporate philosophy of achieving a global presence, we regard compliance with laws, regulations, and social norms as a fundamental part of our management policies, together with fairness and transparency in our business activities. We also believe that these qualities contribute to sustainable corporate development and the improvement of corporate value. Measures to enhance corporate governance, including the establishment of efficient and transparent management organizations, and the creation of systems to ensure timely and fair disclosure

of accurate information, are among our most important management priorities.

One of the ways in which we enhance our corporate governance is by raising compliance awareness among directors, executive officers and employees of OSG and its Group companies through the dissemination of the OSG Philosophy and the OSG Corporate Code of Ethics, which provide specific guidelines designed to raise ethical standards within the company.



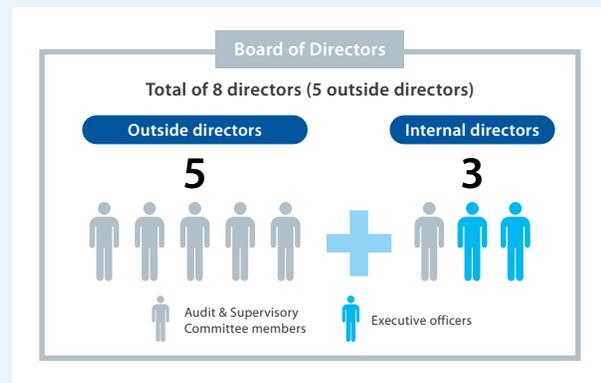
## Overview of Corporate Governance Structure

As a company with an audit and supervisory committee, OSG's corporate governance structure consists of the Board of Directors, the Audit & Supervisory Committee, and the accounting auditors. The role of the Board of Directors is clearly defined under this structure. Operational executive functions are performed by executive officers, while the Board of Directors is responsible for decision-making and the supervision of operational executive actions.

To strengthen decision-making functions, the eight-member Board of Directors includes two members who are also involved in business operations as executive officers. The remaining six directors, of whom five are outside directors, are also members of the Audit & Supervisory Committee. The outside directors also make up the majority of the Board of Directors. By creating this structure, we have enhanced the transparency and independence of the Board of Directors and the effectiveness of its management supervisory role, while bringing in outside perspectives.

In addition, OSG has introduced an executive officer system

to ensure effective responses to changes in the business environment, as well as to clarify the roles and responsibilities of the executive organization. The executive officers are solely responsible for the performance of business operations in a timely manner and in accordance with policies decided by the Board of Directors, while continually improving flexibility and efficiency.



## Reasons for Adopting this Corporate Governance Structure

By adopting our present corporate governance structure, we have enhanced the ability of the Board of Directors to oversee and supervise management decision-making and the performance of business operations, thereby improving management efficiency and ensuring that management decisions can be made appropriately and strategically. The activities of the Audit & Supervisory Committee, of which five of the six members are outside directors, include the auditing of the company's financial position and operations, and the performance of duties by

the representative director and executive officers. OSG's five outside directors are independent officers as stipulated in the listing rules. With the six members of the Audit & Supervisory Committee, including these highly independent outside directors, as members of the Board of Directors, we believe that we have created a corporate governance structure by providing an environment for effective management supervisory functions and by ensuring that the company is managed transparently and appropriately.

## Risk and Compliance Management Committee

In addition to these measures to improve management transparency and fairness and ensure timely information disclosure, we have also established Risk Management Rules as a framework for the creation of risk management structures to maintain management soundness and corporate ethics in the OSG Group. We have also established the Risk and Compliance Management

Committee to ensure the effective and efficient implementation of the Risk Management Rules. Its role is to formulate basic risk management policies and consider and implement timely countermeasures after assessing the significance and urgency of risks.

### Nomination and Compensation Committee

OSG has established a Nomination and Compensation Committee as an advisory body for the Board of Directors. Its purpose is to strengthen the independence, objectivity, and accountability of board functions through the appropriate involvement of independent outside directors and the provision of advice in relation to the appointment of directors and executive officers, etc., and compensation. The Nomination and Compensation Committee consists of directors who are also members of the Audit & Supervisor Committee, and five of the six members are independent outside directors.

Persons who are deemed suitable to be directors of OSG, on the basis of their extensive experience, advanced knowledge, and high-level specialist capabilities, are selected and nominated as candidates for membership of the Board of Directors. The Board of Directors then makes decisions on appointments after seeking advice and receiving a response from the Nomination and Compensation Committee.

Please refer to the section headed “Compensation for Company Officers” on the following page for details of OSG’s process for determining compensation.

Name of committee	Total members	Internal directors	Outside directors	Outside experts	Chairperson
Nomination and Compensation Committee	6	1	5	0	Internal directors

### Reasons for Appointment of Outside Directors, Positions Held Concurrently

Outside director	Audit & Supervisory Committee member	Reasons for appointment	Positions held concurrently
Takeo Nakagawa	○	In addition to an academic career spanning many years, Dr. Nakagawa has extensive experience in and knowledge of corporate management. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Dr. Nakagawa is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Representative Director and Chairman, Fine Tech Corporation Outside Director, TSUGAMI CORPORATION Director, Osawa Scientific Studies Grants Foundation
Kyoshiro Ono	○	Mr. Ono has extensive experience and wide-ranging knowledge gained through his work as an executive officer in another company. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. OSG has a business relationship with ONOCOM Co., LTD., of which Mr. Ono was a director until January 2016, pertaining to the purchase of equipment. This is a normal business relationship between the two corporations. Since Mr. Ono has no direct personal interest in the transactions, there is no risk of a conflict of interest between him and general shareholders. The company judges that there are no issues whatsoever concerning Mr. Ono’s independence.	
Yoshiyuki Sakaki	○	Professor Sakaki has wide-ranging knowledge and experience gained through his long academic career. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Professor Sakaki is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	President, Shizuoka Futaba Gakuen Councilor, Osawa Scientific Studies Grants Foundation
Akito Takahashi	○	Mr. Takahashi has extensive experience and advanced knowledge and specialist skills gained through his career as an attorney. As a legal expert, he was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Mr. Takahashi is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Outside Director, Nippon Carbon Co., Ltd. Outside Director, Oriental Consultants Holdings Co., Ltd.
Kunihiko Hara	○	In addition to an academic career spanning many years, Mr. Hara has extensive experience in and knowledge of corporate management. He was judged to be a person who would participate in board meetings from an independent perspective and contribute to management auditing and supervision. Since Mr. Hara is not associated with any OSG affiliated company or major supplier or customer, he was deemed to present no risk of conflicts of interest with general shareholders, and it was therefore decided to appoint him as an outside director.	Designated Professor, Nagoya University (Innovation Strategy Office)

\*As of February 22, 2020

## Compensation for Company Officers

### ■ Compensation Structure

Compensation for directors (excluding directors who are members of the Audit & Supervisory Committee) consists of fixed basic compensation, variable compensation linked to business performance, and allocations of restricted stock. Since directors who are members of the Audit & Supervisory Committee are independent from the other directors and are not involved in the execution of business operations, their compensation consists solely of fixed compensation.

#### Fixed Compensation

The total amount of fixed compensation is determined within the upper limit defined by a resolution of the 103rd Ordinary Shareholders' Meeting held on February 20, 2016. Compensation is set at ¥396 million per year for directors (excluding directors who are members of the Audit & Supervisory Committee), and ¥84 million per year for directors who are also members of the Audit & Supervisory Committee.

#### Variable Compensation

Starting in the fiscal year ended November 2019, the company provides variable compensation in the form of profit-linked bonuses in line with the definition of profit-linked salaries provided in Article 34, Paragraph 1 Item 3 of the Corporation Tax Act, as well as personal assessment bonuses.

##### Profit-linked Bonuses

- Eligibility: Eligible directors who are serving as executive officers and managing officers
  - Calculation method: Profit-linked bonus = Consolidated operating income before provision for the cost of performance-linked bonuses x Rank-based bonus ratio (see table below)
- The maximum amount for profit-linked bonuses is ¥700 million.

##### Rank-based bonus ratio

Rank	Percentage
President, Representative Director, and CEO	0.405%
Senior Managing Officer, Director	0.183%
Managing Officer	0.162%

##### Personal Assessment Bonuses

- Eligibility: Executive officers (excluding the Representative Director and CEO) and managing officers
- Calculation method: Personal assessment bonuses are paid according to qualitative assessments of each person's contribution to business performance. The maximum amount for personal assessment bonuses is ¥50 million.

### ■ Compensation Based on Allocations of Restricted Stock

- Eligibility: Directors (excluding members of the Audit & Supervisory Committee)
- The amount of compensation is determined within the upper limit defined by a resolution of the 106th Ordinary Shareholders' Meeting held on February 16, 2019. The maximum total value of shares allocated to eligible directors is set at ¥200 million a year, and the maximum total number of the company's ordinary shares that can be issued or disposed of is 100,000 per year. The purpose of this system is to provide an incentive to achieve continual improvement in the company's performance and corporate value and increase the value shared with shareholders.

### ■ Process for Determining Compensation Fixed Compensation, Compensation Based on Allocations of Restricted Stock

In order to determine the amount of compensation for directors (excluding members of the Audit & Supervisory Committee), the Board of Directors delegates the Representative Director to prepare proposed compensation amounts according to standards set by the company. The proposed amounts are then referred to the Nomination and Compensation Committee. Based on the response from the Nomination and Compensation Committee, the amounts are then finalized by a resolution of the Board of Directors. The amount of compensation for directors who are also members of the Audit & Supervisory Committee is determined through consultation among those directors.

#### Variable Compensation

Variable compensation is linked to the company's business performance. The Representative Director is delegated by the Board of Directors to calculate the proposed amounts for profit-linked bonuses and personal assessment bonuses using the methods outlined above. These proposed amounts are then submitted to the Nomination and Compensation Committee. Based on the report from the Nomination and Compensation Committee, the Board of Directors determines the final amounts to be paid, subject to approval of the total amount through a resolution of an ordinary shareholders' meeting.

The company discontinued the payment of retirement bonuses for corporate officers at the conclusion of the 92nd Ordinary Shareholders' Meeting held on February 19, 2005.

## Basic Policy on Constructive Dialogue with Shareholders

Under the leadership of the Representative Director and President, the Management Planning Department coordinates the activities of units involved in IR activities and maintains collaboration among these units on a day-to-day basis. The Management Planning Department actively responds to requests for IR information, including telephone inquiries from investors and small meetings. OSG holds quarterly meetings to present its financial results, as well as half-yearly financial presentations by top management. If necessary, any opinions and concerns

gathered through shareholder dialogue are fed back to the Board of Directors and senior management by the executive officer in charge of the unit that carried out the IR activities concerned. When engaging in dialogue with investors, OSG takes care over the management of insider information by ensuring that such dialogue, whether at financial presentations or small meetings, centers on strategies for the achievement of sustainable growth and the improvement of OSG's corporate value from a medium- to long-term perspective.

## Corporate Officers

President, Representative Director,  
and CEO

**Norio Ishikawa**

Senior Managing Officer, Director

**Nobuaki Osawa**

Director  
(Audit & Supervisory Committee Member)

**Gohei Osawa**

Director  
(Audit & Supervisory Committee Member)

**Takeo Nakagawa\***

Director  
(Audit & Supervisory Committee Member)

**Kyoshiro Ono\***

Director  
(Audit & Supervisory Committee Member)

**Yoshiyuki Sakaki\***

Director  
(Audit & Supervisory Committee Member)

**Akito Takahashi\***

Director  
(Audit & Supervisory Committee Member)

**Kunihiko Hara\***

\*Outside Director

Substitute Director  
(Audit & Supervisory Committee Member)

**Kayoko Yamashita\*\***

\*\*Substitute Outside Director

Managing Officer

**Jiro Osawa**

Managing Officer

**Hideaki Osawa**

Managing Officer

**Koji Takeo**

Senior Executive Officer

**Mitsuyoshi Hikosaka**

Senior Executive Officer

**Yasutaka Yoneda**

Executive Officer

**Jeffrey Tennant**

Executive Officer

**Toshihiro Hisadome**

Executive Officer

**Yasushi Suzuki**

Executive Officer

**Hideyuki Ohashi**

Executive Officer

**Kenya Sugihara**

Executive Officer

**Seungjin Chung**

Executive Officer

**Yukinori Chikada**

Executive Officer

**Osamu Ishida**





## Environmental Initiatives

As a supplier of cutting tools to meet the needs of a wide range of industries, OSG is continually working to minimize environmental loads through its product development and manufacturing activities.

### Basic Philosophy

The OSG Group recognizes protection of the global environment as a vital priority for humanity. Under our Environmental Basic Policy, we are actively committed to efficient resource use and environmentally responsible manufacturing. We strive to supply our customers with environment-friendly products and services as part of efforts to reduce environmental loads and contribute to the development of a society based on resource recycling.

### Environmental Basic Policy

Under the slogans, "An Eco-friendly Company" and "A Culture that Cares for the Environment," we work to protect the global environment and achieve harmonious coexistence between our activities and the natural environment.

#### Environmental Performance in Fiscal 2019 and Targets for Fiscal 2020

No.	Environmental target		FY2019		FY2020 Target
	Item	Content	Target	Result	
1	Energy Conservation	Total Energy Use Reduction (Energy sources: Electric power, Fuel oil and LPG)	1.0% reduction 957 GJ/month reduction	2.0% reduction 1,911 GJ/month reduction	<b>1.0% reduction 957 GJ/month reduction</b>
		Total use of energy BM: 85,018 GJ/month			
		Basic unit of production BM: 20 GJ/million yen	1.0% reduction 0.20 GJ/million yen reduction	9.8% reduction 1.91 GJ/million yen reduction	<b>1.0% reduction 0.20 GJ/million yen reduction</b>
2	Eco-Products	Eco-Friendly Product Development	31 points	27 points	<b>33 points*</b>
3	Eco-Factory	Eco-Friendly Production	34 points	48 points	<b>37 points*</b>

\*Numerical scores out of 60 under OSG's standards for the improvement of environmental activities

### Promotion of Resources Recycling

OSG has been promoting zero emission activities to reduce waste. We have also developed a system to recycle reusable and recyclable resources and established a structure to ensure the proper disposal of waste from our operations. Therefore, our recycling rate has been over 99% since 2005.



Metal scrap	634.6 tons
Cardboard boxes (sold for reuse)	76.4 tons
Waste oil (sold for reuse, recycled)	420.2 tons
Oil sludge (sold for reuse, recycled)	174.5 tons
Diatomaceous soil (sold for reuse, recycled)	489.5 tons
Waste grinding wheels (recycled)	49.6 tons
Waste plastic (recycled)	65.3 tons
Wood chips (recycled)	82.1 tons
Others (recycled)	68.6 tons
<b>Total</b>	<b>2,060.7 tons</b>

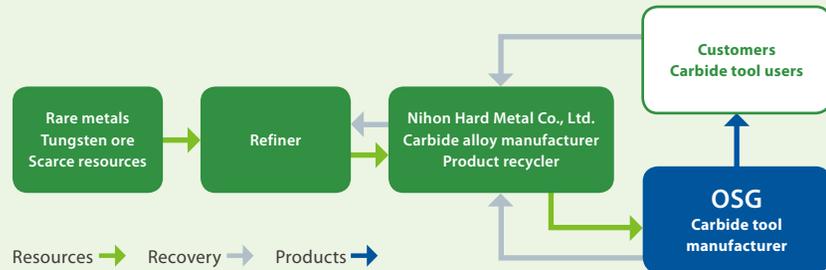
\*Results for fiscal 2019

## Initiatives to Reduce Environmental Impacts

OSG is working to manufacture environment-friendly products and supply them to customers. We are actively reducing environmental impacts by enhancing after-sales services, by developing highly efficient tools that allow rapid cutting, and by creating products with extended life spans that help to reduce the amounts of resources used.

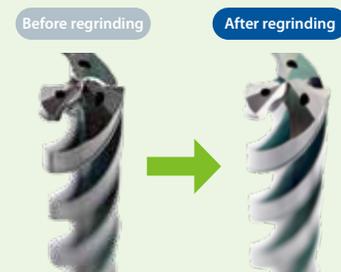
### ■ Carbide Tool Recycling

Carbide tool recycling is a priority for the entire OSG Group. We ensure effective resource utilization by collecting used tools from customers and recycling the rare metals in them for reuse as raw materials. We also help our customers to improve the effectiveness of their CSR activities and achieve zero emission status.



### ■ Regrinding and Recoating Services

With repeated use, the cutting performance of taps, end mills, drills, and other cutting tools will eventually deteriorate due to wear. These tools can be restored to the same standard as new products through regrinding and recoating. OSG provides regrinding, recoating, and other after-sales services globally to meet the needs of its customers.



## TOPICS

### Environment-friendly Products

#### 3-Flute Drills—the New Standard The ADO-TRS-3D and 5D “Triple Revolution” 3-Flute Carbide Drill Series

OSG is committed to the development of environment-friendly products. On November 1, 2018, we announced the ADO-TRS series of drills at the Japan International Machine Tool Fair (JIMTOF 2018). Dubbed the “Triple Revolution” drills after a naming competition, the ADO-TRS drills represent a new era in carbide drills, a category in which 2-flute drills were previously the norm. With low cutting resistance comparable to the performance of 2-flute drills, our 3-flute drills provide superior chip evacuation and are rated highly by users.

##### ● R Gash

Reliable processing of steel materials was difficult with conventional 3-flute drills. The unique R gash geometry of the ADO-TRS drills provides significant improvements in terms of chip breaking and chip form consistency. In addition, this new geometry can reduce cutting resistance by as much as 30%, to below the level possible with 2-flute drills, resulting in stable performance in high-feed processing of steel materials.

##### ● Long Life, Stable Processing

This combination of specifications allows the ADO-TRS series to achieve a long tool life with reliable drilling of a wide range of materials, including high-strength steels. ADO-TRS drills reduce processing time and power consumption thanks to their high efficiency, while their long service life contributes to the effective long-term use of carbide materials.





## Social Initiatives

We will fulfill our social responsibilities to all of our stakeholders, including our customers, suppliers, employees, and communities.

### Basic Philosophy

The OSG Group is working toward the development of a more sustainable society by maintaining and developing healthy relationships with all stakeholders, including shareholders, customers, business partners, employees, and local communities. As members of society, we will strive to exist in harmony with society through social contribution activities and the promotion of mutual understanding with stakeholders.

### Promoting Diversity

#### Active Commitment to the Expansion of Employment Opportunities for People with Disabilities

OSG actively employs people with disabilities. We are also expanding our efforts in this area into off-site and contract work in collaboration with community-based social welfare organizations. OSG is broadening the scope of its contributions to local communities and society by providing opportunities for people who cannot work within companies to participate in the workforce. We will continue to work alongside all concerned to help people to experience the joy of productive work.

#### Exceeding the Statutory Percentage of Employees with Disabilities

<b>Statutory ratio</b>	2.20%
<b>OSG employment ratio</b>	2.27%

\*As of fiscal 2019

#### Recruitment and Stabilization

We work closely with support organizations to monitor the progress of individuals with disabilities from recruitment to stable employment. At the pre-employment stage, we provide factory tours, work experience opportunities, and other activities matched to each person's level of disability, so that individuals will have a better understanding of the workplace and feel confident to work on a continuous basis. We are also aware of the possibility that some employees with disabilities may have difficulty carrying out their work due to the sudden onset of debilitating symptoms. OSG will continue its efforts to create working environments in which everyone can work with peace of mind, while also heeding input from all of our employees, including those with disabilities.

#### Contributing to Communities

<b>OSG factory tours for support organizations and companies</b>	<b>Year ended November 2019</b>	<b>Individuals: 41 Groups: 5</b>
<b>Seminar for companies, supporters, and users "Examples of Employment Initiatives for People with Disabilities"</b>	<b>Year ended November 2019</b>	<b>External: 12</b>

#### Staff Member Opinion: Key elements of our approach at the recruitment stage

- We value people.
- People with disabilities are valuable workers.
- A person's individuality includes their disabilities.
- People need the happiness that comes from performing useful work.



Masahisa Miyagawa  
Human Resources and  
General Affairs Department

## Creating Good Working Environments

### OSG's Approach to Work-style Innovation

OSG is implementing work-style innovations with the aim of improving both worker satisfaction and productivity. We will create healthy working environments in which everyone can work with confidence and improved motivation and efficiency.

#### ■ Introduction of a Flextime System

In addition to our existing system of reduced working hours for employees with childcare and nursing care needs, we have introduced a flextime system at most of our worksites. Under this system, all employees are able to adjust their working hours flexibly according to their individual lifestyles.

#### ■ Satellite Work System Trial

We are currently trialing a new satellite work system developed to assist employees who find it difficult to attend their original work locations because of the location in which they live, childcare needs, or other factors. By allowing people to work at sites closer to their homes, this system reduces commuting times and also supports employees with childcare duties.

### Creating a Virtuous Cycle by Providing Good Working Environments



## TOPICS

### Sustainable Growth of the OSG Brand

#### Maintaining and Improving Quality, Communicating with Our Customers

We are implementing a range of initiatives to strengthen the OSG brand. Our key priorities are the maintenance and improvement of quality, and communication with customers. In line with our motto of "shaping your dreams," we will continue to work toward further improvements in customer satisfaction by supplying dependable products and services.

#### ● Working toward Consistent Global Quality under the OSG Quality Certification System

OSG established the OSG quality certification system to ensure consistent quality in its products and services throughout the world. Quality assurance departments in our production facilities and Group companies around the world work together to maintain and enhance their quality performance. In fiscal 2019, three of our Group companies achieved Quality Level 5, the highest rating under the OSG quality certification system.

#### Group Companies and Products that Achieved Quality Level 5 for the First Time in Fiscal 2019

Organizational level	Company (country)	Products
Level 5	OSG Thai Co., Ltd. (Thailand)	• Rolling dies (TR/DP/RF) • Carbide drills
	OSG (Shanghai) Precision Tools Co., Ltd. (China)	• Carbide end mills • Carbide drills
	Aoyama Seisakusho Co., Ltd. (Japan)	• Regrinding of carbide drills

#### ● Participation in Exhibitions

As a comprehensive cutting tool manufacturer, OSG actively participates in various exhibitions. We also build tool-based communication with customers through hands-on seminars at which participants can try out tools for themselves.



MECT2019



INTERMOLD2019

## Financial Section

### Key Financial Data for the Past 10 Years

		2010/11	2011/11	2012/11
For the year	Net sales	69,513	80,959	84,083
	Cost of sales	44,605	48,439	49,381
	Selling, general and administrative expenses	17,383	20,214	20,747
	Operating income (loss)	7,524	12,305	13,954
	Ordinary income (loss)	6,699	11,374	13,695
	Net income (loss) attributable to OSG Corporation	3,772	5,904	7,138
	Cash flows from operating activities	14,095	11,344	12,286
	Cash flows from investing activities	(5,522)	(8,195)	(19,746)
	Cash flows from financing activities	(15,562)	(5,855)	8,643
	Depreciation and amortization	5,307	5,657	5,688
	EBITDA	12,832	17,962	19,642
	Capital expenditure	3,568	8,225	10,284
	Number of employees	4,843	5,078	5,117
	End of fiscal year	Total assets	105,635	104,373
Net assets		63,162	65,347	71,471
Interest-bearing debt		27,318	23,011	34,284
Total equity		57,117	59,367	64,482
Per share	Net income (loss) (yen)	39.34	62.18	75.16
	Net assets (yen)	601.44	625.14	679.01
	Dividends (yen)	12.00	18.00	23.00
Management indicators	Overseas sales ratio (%)	48.6	49.7	48.0
	Operating income margin (%)	10.8	15.2	16.6
	Return on equity (ROE) (%)	6.7	10.1	11.5
	Return on assets (ROA) (%)	3.4	5.6	6.3
	Equity ratio (%)	54.1	56.9	53.0
	EBITDA margin (%)	18.5	22.2	23.4
	Dividend payout ratio (%)	30.5	28.9	30.6
Data by product category	Taps	23,158	28,906	29,379
	Drills	16,265	18,284	19,839
	End mills	16,198	17,837	18,472
	Rolling dies	6,663	7,067	7,280
	Gauges	1,085	1,137	1,176
	Other	6,140	7,725	7,935
Sales to external customers	Japan	36,196	41,266	44,212
	The Americas	11,295	12,699	13,605
	Europe/Africa	5,536	6,548	6,491
	Asia	16,484	20,444	19,774

2013/11	2014/11	2015/11	2016/11	2017/11	2018/11	(Millions of yen)	(Thousands of U.S. dollars)
						2019/11	2019/11
88,378	101,031	111,917	105,561	120,198	131,368	126,964	1,158,854
52,777	58,061	61,865	59,179	69,711	74,833	73,281	668,872
22,774	25,554	28,454	28,135	31,349	34,015	34,128	311,503
12,827	17,415	21,597	18,246	19,137	22,520	19,554	178,478
13,910	17,568	21,510	17,813	19,144	22,567	19,710	179,906
8,619	9,989	12,518	10,134	13,993	14,710	13,686	124,920
16,171	19,688	19,588	16,333	20,820	20,125	19,261	175,811
(2,972)	(3,119)	(16,976)	(16,843)	(7,566)	(13,351)	(20,314)	(185,421)
(9,423)	(12,813)	(6,216)	(778)	(11,137)	(4,723)	3,465	31,631
6,716	6,830	7,705	7,885	8,612	9,100	9,522	86,918
19,544	24,246	29,302	26,132	27,749	31,621	29,076	265,396
5,876	7,327	12,487	13,394	9,494	11,464	17,139	156,435
5,118	5,233	5,569	5,866	6,611	7,020	7,236	7,236
134,503	142,302	155,129	156,081	166,712	178,020	190,414	1,737,991
87,621	100,943	113,637	103,059	128,394	138,354	140,658	1,283,853
29,063	20,009	20,195	33,506	16,325	15,612	26,782	244,453
80,024	91,458	102,566	92,216	115,810	125,332	129,078	1,178,153
90.76	105.20	131.78	110.59	153.70	150.47	140.06	1.28 (US dollars)
842.71	963.15	1,079.12	1,024.34	1,191.65	1,279.29	1,328.08	12.12 (US dollars)
30.00	34.00	46.00	50.00	46.00	47.00	47.00	0.43 (US dollars)
53.5	54.6	57.8	55.3	57.6	58.4	57.3	—
14.5	17.2	19.3	17.3	15.9	17.1	15.4	—
11.9	11.7	12.9	10.4	13.5	12.2	10.8	—
6.7	7.2	8.4	6.5	8.7	8.5	7.4	—
59.5	64.3	66.1	59.1	69.5	70.4	67.8	—
22.1	24.0	26.2	24.8	23.1	24.1	22.9	—
33.1	32.3	34.9	45.2	29.9	31.2	33.6	—
28,924	34,655	38,239	33,948	38,175	41,729	39,895	364,139
20,724	23,600	25,743	26,709	31,662	36,811	36,147	329,934
20,857	22,886	26,554	24,837	27,090	27,917	26,690	243,617
7,681	9,165	9,921	9,443	10,218	10,645	9,973	91,031
1,232	1,419	1,538	1,478	1,625	1,757	1,946	17,767
8,958	9,304	9,919	9,143	11,424	12,508	12,310	112,363
41,922	46,659	48,150	48,257	51,639	55,287	54,725	499,500
16,093	18,236	21,758	19,478	21,413	22,680	23,152	211,319
7,827	9,879	11,382	12,268	18,177	22,134	20,893	190,702
22,534	26,256	30,626	25,556	28,968	31,266	28,193	257,331

## Financial Section

### Consolidated Summary Balance Sheet

	FY2018 As of Nov. 30, 2018	(Millions of yen) FY2019 As of No v. 30, 2019
<b>Assets</b>		
<b>Current Assets</b>		
Cash and time deposits	24,406	26,950
Notes and accounts receivable	25,128	22,400
Marketable securities	0	11
Merchandise and finished goods	24,237	29,844
Work in process	7,443	6,376
Raw materials and supplies	7,121	7,658
Other	2,781	3,061
Allowance for doubtful accounts	(198)	(198)
Total current assets	90,920	96,104
<b>Fixed Assets</b>		
<b>Tangible assets</b>		
Building and structures	19,871	18,663
Machinery and equipment	32,269	35,217
Tools, furniture, and fixtures	2,159	2,179
Land	15,172	14,864
Construction in progress	2,748	7,199
Other	4	12
Total tangible assets	72,226	78,137
<b>Intangible assets</b>		
Goodwill	3,367	3,613
Other	633	1,412
Total intangible assets	4,000	5,026
<b>Investments and other assets</b>		
Investment securities	4,610	3,882
Investment in capital	1,859	1,203
Long-term loans	412	1,774
Deferred tax assets	2,358	2,951
Net defined benefit asset	75	87
Other	1,937	1,611
Allowance for doubtful accounts	(381)	(364)
Total investments and other assets	10,873	11,146
Total fixed assets	87,100	94,309
<b>Total</b>	178,020	190,414

(Millions of yen)

	FY2018 As of Nov. 30, 2018	FY2019 As of Nov. 30, 2019
<b>Liabilities and Net Assets</b>		
<b>Current Liabilities</b>		
Notes and accounts payable	6,067	6,039
Short-term loans payable	2,282	2,742
Current portion of long-term loans payable	1,175	546
Accrued expenses	7,878	7,822
Income taxes payable	2,732	2,699
Reserve for directors' bonuses	390	253
Other	3,675	3,474
Total current liabilities	24,202	23,578
<b>Long-term Liabilities</b>		
Bonds	—	5,000
Convertible bonds	1,860	1,670
Long-term borrowings	10,294	16,822
Deferred tax liabilities	953	1,079
Retirement allowance for directors and corporate auditors	27	—
Liabilities for employees' retirement benefits	511	504
Other	1,815	1,099
Total long-term liabilities	15,463	26,177
Total liabilities	39,666	49,755
<b>Shareholders' Equity</b>		
Common stock	12,124	12,194
Capital surplus	13,662	13,731
Retained earnings	100,260	109,428
Treasury stock	(161)	(1,894)
Total shareholders' equity	125,886	133,460
<b>Accumulated Other Comprehensive Income</b>		
Unrealized gain on available-for-sale securities	1,608	1,281
Foreign currency translation adjustments	(2,161)	(5,663)
Total accumulated other comprehensive income	(553)	(4,381)
Subscription rights to shares	13	13
Noncontrolling interests	13,008	11,567
Total net assets	138,354	140,658
<b>Total Liabilities and Net Assets</b>	<b>178,020</b>	<b>190,414</b>

## Financial Section

### Consolidated Summary Statement of Income

	FY2018 Dec. 1, 2017 to Nov. 30, 2018	(Millions of yen) FY2019 Dec. 1, 2018 to Nov. 30, 2019
<b>Net Sales</b>	131,368	126,964
<b>Cost of Sales</b>	74,833	73,281
Gross profit	56,535	53,682
<b>Selling, General and Administrative Expenses</b>	34,015	34,128
Operating income	22,520	19,554
<b>Other Income</b>		
Interest income	217	245
Dividend income	105	97
Purchase discounts	45	52
Equity in earnings of affiliates	—	10
Reversal of provision for loss on litigation	—	380
Subsidy income	254	252
Other	840	869
Total other income	1,463	1,908
<b>Other Expenses</b>		
Interest expense	164	205
Sales discounts	817	787
Equity in losses of affiliates	15	—
Foreign exchange loss	119	260
Other	297	497
Total other expenses	1,415	1,752
<b>Ordinary Income</b>	22,567	19,710
<b>Extraordinary Income</b>		
Gain on sales of investment securities	—	474
Total extraordinary income	—	474
<b>Extraordinary Loss</b>		
Loss on valuation of investment securities	—	339
Total extraordinary loss	—	339
<b>Income Before Income Taxes</b>	22,567	19,845
<b>Income Taxes</b>		
Current	7,111	5,963
Deferred	(184)	(409)
Total income taxes	6,926	5,554
<b>Net Income</b>	15,641	14,291
<b>Net Income Attributable to Noncontrolling Interests</b>	930	604
<b>Net Income Attributable to OSG Corporation</b>	14,710	13,686

## Financial Section

### Consolidated Statement of Comprehensive Income

	FY2018 Dec. 1, 2017 to Nov. 30, 2018	(Millions of yen) FY2019 Dec. 1, 2018 to Nov. 30, 2019
<b>Net Income</b>	15,641	<b>14,291</b>
<b>Other Comprehensive Income</b>		
Unrealized gain (loss) on available-for-sale securities	(414)	<b>(332)</b>
Deferred gain (loss) on derivatives under hedge accounting	0	—
Foreign currency translation adjustments	(1,672)	<b>(4,534)</b>
Share of other comprehensive income in associates	(0)	1
Total other comprehensive income	(2,086)	<b>(4,865)</b>
<b>Comprehensive Income</b>	13,554	<b>9,425</b>
(Breakdown)		
Comprehensive income attributable to OSG Corporation	12,877	<b>9,755</b>
Comprehensive income attributable to noncontrolling interests	677	<b>(329)</b>

## Financial Section

### Consolidated Statement of Changes In Equity

FY2018 (Dec. 1, 2017 to Nov. 30, 2018)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total
<b>Balance, November 30, 2017</b>	11,954	13,492	90,308	(1,229)	114,526
<b>Changes of items during period</b>					
Issuance of new shares	170	170			340
Cash dividends			(4,583)		(4,583)
Net income attributable to owners of the parent			14,710		14,710
Purchase of treasury stock				(9)	(9)
Disposal of treasury stock			(127)	1,077	950
Adjustment of retained earnings for newly consolidated subsidiaries			(47)		(47)
Purchase of shares of consolidated subsidiaries					—
Transfer to capital surplus from retained earnings					—
Net change in the year					
Total changes of items during period	170	170	9,952	1,067	11,359
<b>Balance, November 30, 2018</b>	12,124	13,662	100,260	(161)	125,886

FY2019 (Dec. 1, 2018 to Nov. 30, 2019)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total
<b>Balance, November 30, 2018</b>	12,124	13,662	100,260	(161)	125,886
<b>Changes of items during period</b>					
Issuance of new shares	70	70			140
Cash dividends			(4,704)		(4,704)
Net income attributable to owners of the parent			13,686		13,686
Purchase of treasury stock				(1,904)	(1,904)
Disposal of treasury stock		4		171	175
Adjustment of retained earnings for newly consolidated subsidiaries			271		271
Purchase of shares of consolidated subsidiaries		(90)			(90)
Transfer to capital surplus from retained earnings		84	(84)		—
Net change in the year					
Total changes of items during period	70	68	9,168	(1,732)	7,574
<b>Balance, November 30, 2019</b>	12,194	13,731	109,428	(1,894)	133,460

(Millions of yen)

Accumulated other comprehensive income				Total	Stock acquisition rights	Noncontrolling interests	Total equity
Unrealized gain on available-for-sale securities	Deferred (loss) gain on derivatives under hedge accounting	Foreign currency translation adjustments					
2,019	(0)	(735)	1,283	13	12,570	128,394	
						340	
						(4,583)	
						14,710	
						(9)	
						950	
						(47)	
						—	
						—	
(410)	0	(1,426)	(1,837)	—	437	(1,399)	
(410)	0	(1,426)	(1,837)	—	437	9,960	
1,608	—	(2,161)	(553)	13	13,008	138,354	

(Millions of yen)

Accumulated other comprehensive income				Total	Stock acquisition rights	Noncontrolling interests	Total equity
Unrealized gain on available-for-sale securities	Deferred (loss) gain on derivatives under hedge accounting	Foreign currency translation adjustments					
1,608	—	(2,161)	(553)	13	13,008	138,354	
						140	
						(4,704)	
						13,686	
						(1,904)	
						175	
						271	
						(90)	
						—	
(326)	—	(3,501)	(3,828)	—	(1,441)	(5,269)	
(326)	—	(3,501)	(3,828)	—	(1,441)	2,304	
1,281	—	(5,663)	(4,381)	13	11,567	140,658	

## Financial Section

### Consolidated Summary Statement of Cash Flows

(Millions of yen)

	FY2018 Dec. 1, 2017 to Nov. 30, 2018	FY2019 Dec. 1, 2018 to Nov. 30, 2019
<b>Operating Activities:</b>		
Income before income taxes	22,567	19,845
Depreciation and amortization	9,100	9,522
Amortization of goodwill	477	535
Change in allowance for doubtful receivables	(16)	7
Change in liability for directors' bonuses	(1)	(137)
Change in liability for employees' retirement benefits	69	51
Change in retirement allowance for directors and corporate auditors	(42)	(24)
Interest and dividend income	(322)	(343)
Interest expense	164	205
Equity in loss (earnings) of an associated company	15	(10)
Gain on sales of investment securities	—	(474)
Loss on valuation of investment securities	—	339
Change in notes and accounts receivable	(1,494)	1,902
Change in inventories	(3,854)	(6,319)
Change in notes and accounts payable	768	453
Change in accrued expenses	593	115
Other—net	(725)	(19)
Sub-total	27,300	25,651
Interest and dividend income received	310	345
Interest expense paid	(125)	(232)
Income taxes—paid	(7,359)	(6,503)
Net cash provided by operating activities	20,125	19,261
<b>Investing Activities:</b>		
Payments for time deposits	(2,788)	(3,504)
Proceeds from refund of time deposits	1,480	2,971
Proceeds from redemption of marketable securities	0	0
Purchases of investment securities	(243)	(429)
Proceeds from sales of investment securities	78	583
Acquisitions of property, plant and equipment	(11,464)	(17,139)
Proceeds from sales of property, plant and equipment	406	211
Acquisitions of intangible assets	(105)	(418)
Payment for purchase of subsidiaries' stock	(620)	(1,158)
Other—net	(94)	(1,432)
Net cash used in investing activities	(13,351)	(20,314)
<b>Financing Activities:</b>		
Change in short-term borrowings—net	424	482
Proceeds from long-term borrowings	420	7,036
Repayments of long-term borrowings	(539)	(1,259)
Proceeds from issuance of bonds	—	5,000
Purchase of investments in subsidiaries resulting in no change in scope of consolidation	(26)	(682)
Purchase of treasury stock	(4)	(1,899)
Proceeds from sales of treasury stock	—	54
Dividends paid	(4,581)	(4,709)
Dividends paid to noncontrolling interests	(416)	(525)
Other—net	—	(30)
Net cash used in financing activities	(4,723)	3,465
Effect of exchange rate change on cash and cash equivalents	(333)	(690)
Net increase in cash and cash equivalents	1,716	1,721
Cash and cash equivalents at beginning of year	19,598	21,545
Cash and cash equivalents from newly consolidated subsidiaries	229	437
Cash and cash equivalents at end of year	21,545	23,704

## Corporate Information

### Company Profile (As of November 30, 2019)

Company name	OSG Corporation	Number of employees	7,236 (consolidated)/ 1,845 (non-consolidated)
Headquarters	3-22, Honnogahara, Toyokawa, Aichi Prefecture 442-8543, Japan	Business activities	Manufacture and sale of cutting tools, rolling dies, gauges, machine tools and machine parts, importation and sale of tools
Date established	March 26, 1938		
Capital	¥12,194 million		

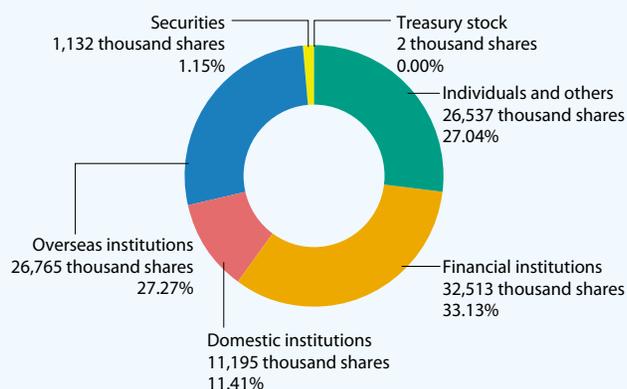
### Status of Shares (As of November 30, 2019)

Number of shares issuable	200,000,000 shares
Number of shares outstanding	98,147,239 shares
Number of shareholders	7,324
Minimum share purchasing unit	100 shares
Stock listings	Tokyo Stock Exchange, Nagoya Stock Exchange
Securities code	6136

#### Major shareholders

	Number of shares held (Thousands)	Percent ownership (%)
The Master Trust Bank of Japan, Co., Ltd. (Trust Account)	6,713	6.84
SSBTC CLIENT OMNIBUS ACCOUNT	5,451	5.55
Japan Trustee Services Bank, Ltd. (Trust Account)	4,566	4.65
NORTHERN TRUST CO. (AVFC) RE FIDELITY FUNDS	3,796	3.87
OSG Agent Association	3,066	3.12
OSG Stock Holding Association	2,543	2.59
Nomura Trust and Banking Co., Ltd. (Investment Trust Account)	2,348	2.39
Osawa Scientific Studies Grants Foundation	2,340	2.38
Sumitomo Mitsui Banking Corporation	2,100	2.14
THE BANK OF NEW YORK MELLON 140051	2,095	2.14

#### Ownership breakdown



#### (Notes)

1. The number of shares held is rounded down to the nearest thousand.
2. The shareholding ratio is calculated after deducting treasury shares.

### To Our Stakeholders



OSG's website provides a variety of timely information such as corporate information, product information, industry solutions, news releases and IR information.

<https://www.osg.co.jp/en/>





*shaping your dreams*

## **OSG Corporation**

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