J.E.T. Co., Ltd.

Financial Results for the Second Quarter of the Fiscal Year Ending December 2024

August 23, 2024

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Agenda

1. Summary of Second Quarter Financial Results and Full-Year Forecasts of the Fiscal Year Ending December 2024
2. Topics for the Fiscal Year Ending December 2024
3. Future Growth Strategies

Appendix

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1. Summary of Second Quarter Financial Results and Full-Year Forecasts of the Fiscal Year Ending December 2024

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Results Summary

Sales and profit decreased quarter on quarter because there were not many cleaning equipment start-up projects in the first quarter and the second quarter also saw a delay to the second half in the start-up of some equipment due to a customer request

Net sales	Operating profit	Ordinary profit	Net profit
9,968 million JPY	587 million JPY	520 million JPY	297 million JPY
QoQ -15.0%	QoQ -43.4%	QoQ -44.9%	QoQ -54.0%

- ✓ Global consumption remains stagnant due to geopolitical factors and inflation
- ✓ For DRAM, prices rose and new capital investment increased with many HBM devices used in servers and GPUs for generative AI
- ✓ Capital investment in mature semiconductors, particularly in China, continued but the equipment operating rate remained low at some foundries, showing a slowing investment trend
- ✓ Consolidated full-year forecasts have also been revised (see the release dated August 9, 2024)

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Consolidated Results

Due to the decline in sales, initiatives were undertaken to curb the SG&A expense ratio; however, the ratio rose, putting pressure on profits

Unit (millions of JPY)	First half of fiscal year ended December 31, 2023	Sales ratio (%)	Fiscal year ending December 2024 First half	Sales ratio (%)	YoY change (%)
Net sales	11,724	—	9,968	—	-15.0%
Gross profit	2,399	20.5%	2,006	20.1%	-16.4%
SG&A expenses	1,360	11.6%	1,418	14.2%	4.3%
Operating profit	1,039	8.9%	587	5.9%	-43.5%
Ordinary profit	944	8.1%	520	5.2%	-44.9%
Interim net profit	646	5.5%	297	3.0%	-54.0%

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Consolidated Balance Sheet

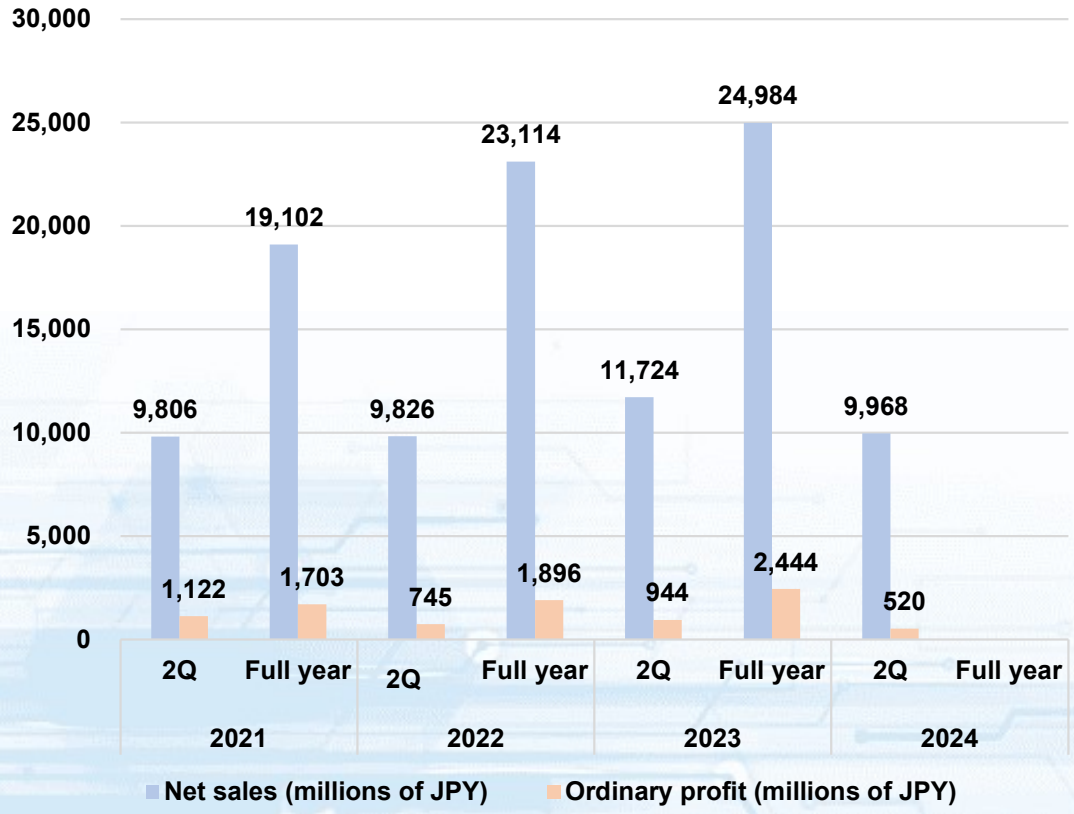
Unit (millions of JPY)	Fiscal year ended December 2023	Fiscal year ending December 2024 First half	Increase/Decrease	Main factors of change
Current assets	27,068	26,375	-693	Increase in Cash and Deposits Decrease in Work in Process
Property, plant and equipment	954	1,013	59	
Intangible assets	56	92	36	
Investments and other assets	695	746	51	
Total assets	28,774	28,228	-546	
Current liabilities	11,496	11,175	-321	Increase in Short-Term Borrowings Decrease in Advances Received
Non-current liabilities	4,866	4,623	-243	Decrease in Long-Term Borrowings
Total liabilities	16,362	15,799	-563	
Total net assets	12,411	12,429	18	Decrease in Retained Earnings
Total liabilities and net assets	28,774	28,228	-546	

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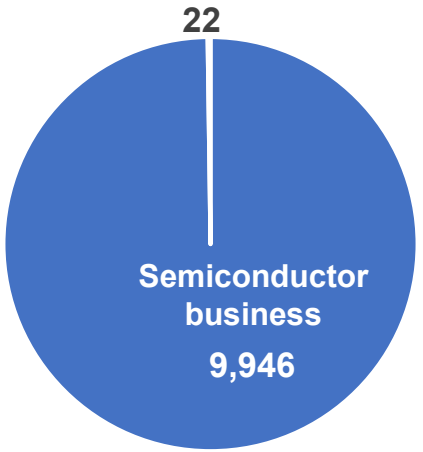
Net Sales and Ordinary Profit and Composition of Net Sales

Performance hit a plateau due to a delay in start-up of cleaning equipment, etc.

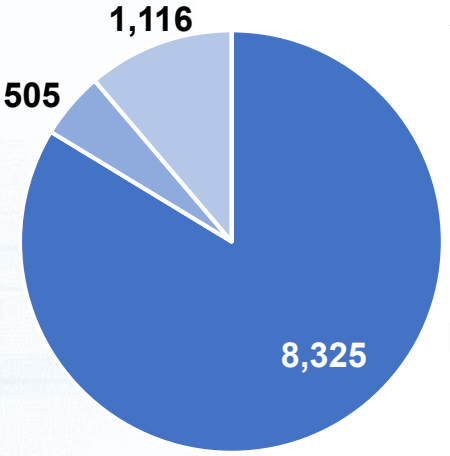
Net Sales and Ordinary Profit



Net Sales by Segment



Breakdown of Semiconductor Business



Batch type ■ Single-wafer type ■ Field services ■ Others

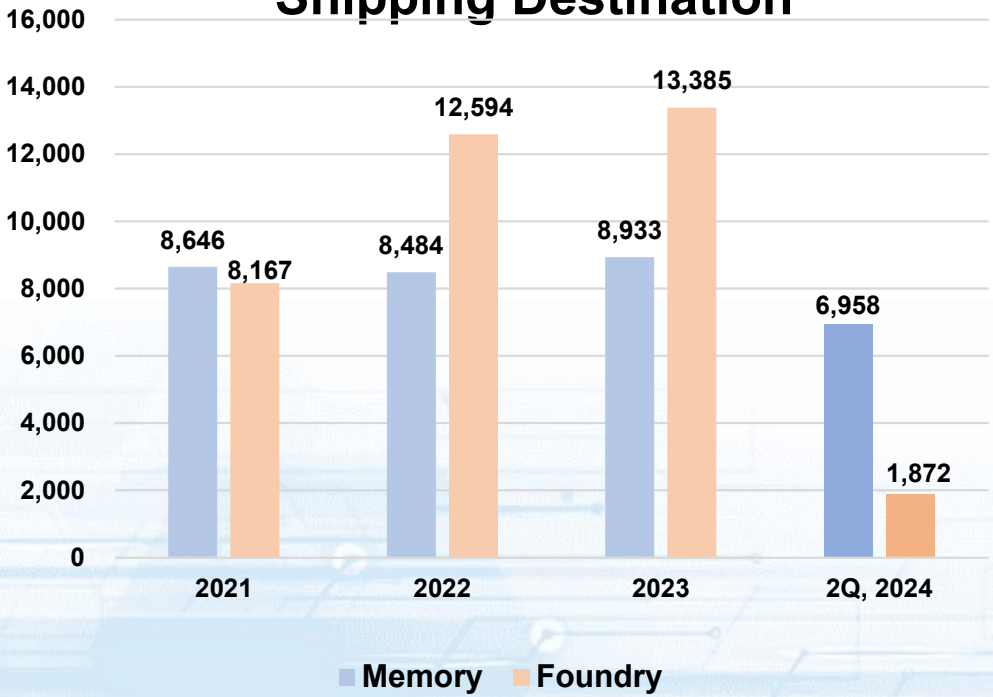
Fiscal year ending December 2024 2Q Results

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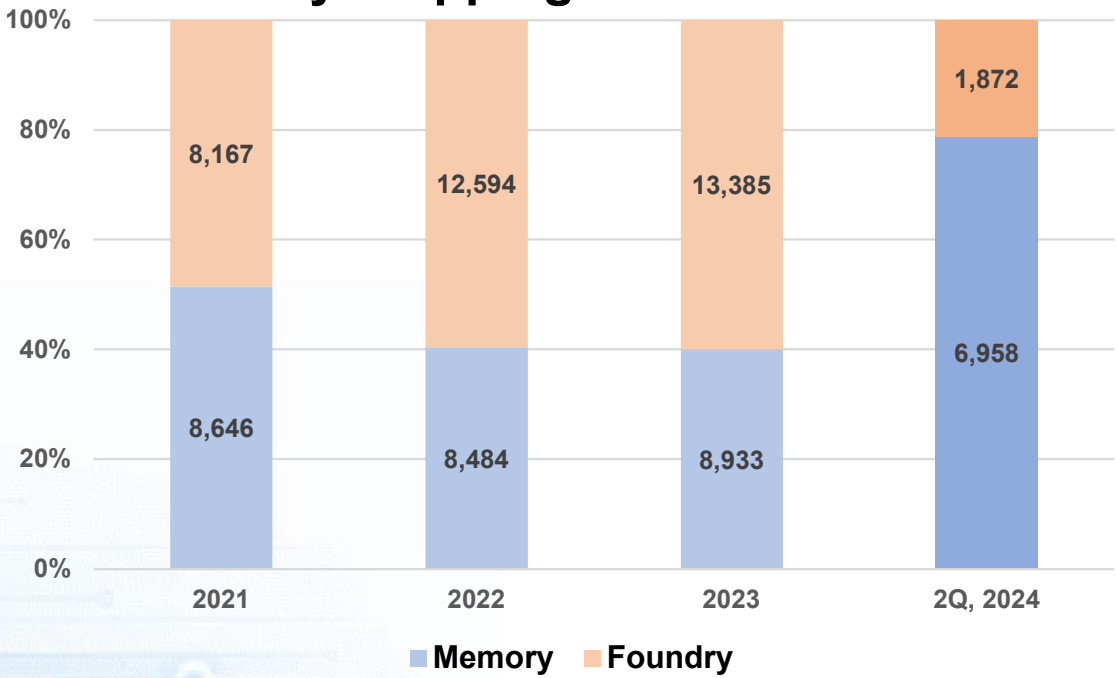
Equipment Net Sales (by Shipping Destination)

High sales composition ratio for memory in second quarter of fiscal year ending December 2024

Equipment Net Sales by Shipping Destination



Equipment Net Sales Composition by Shipping Destination

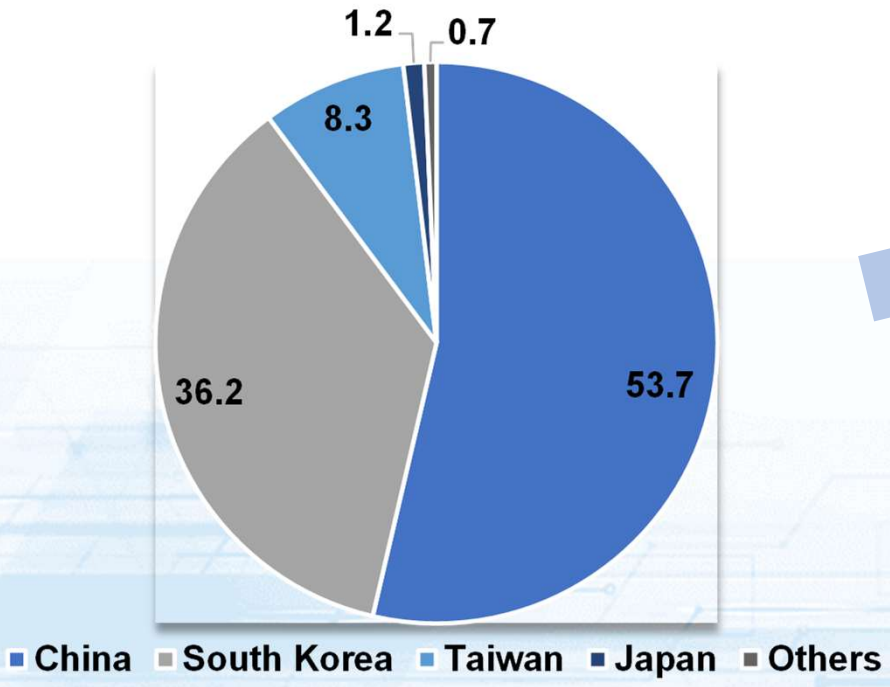


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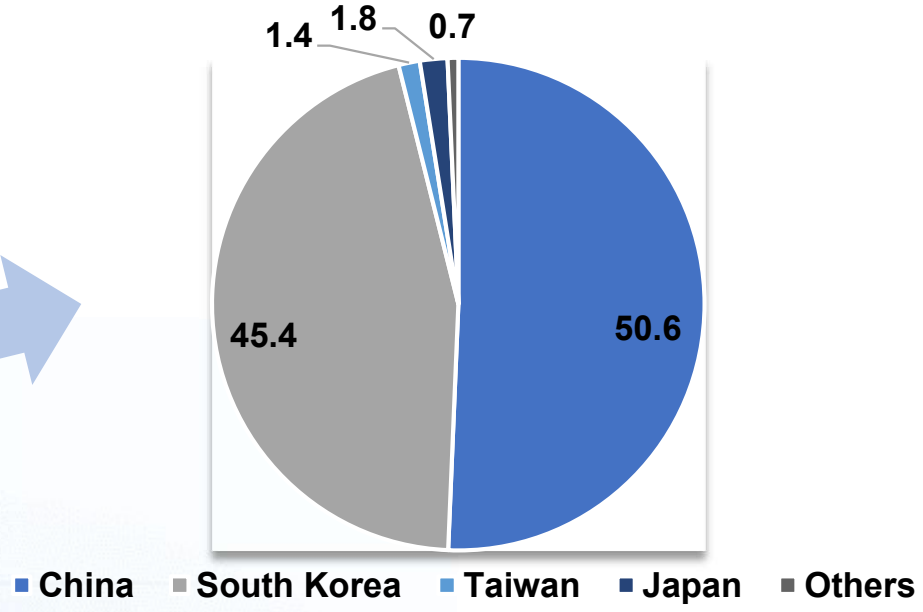
Net Sales Composition by Region (1)
Comparison with Previous Quarter

Sales composition in second quarter of fiscal year ending December 2024 is centered on sales to South Korea and China

*** In the future, we aim to achieve a composition ratio of 25% for China, Taiwan, South Korea and the United States + Japan etc. each.**



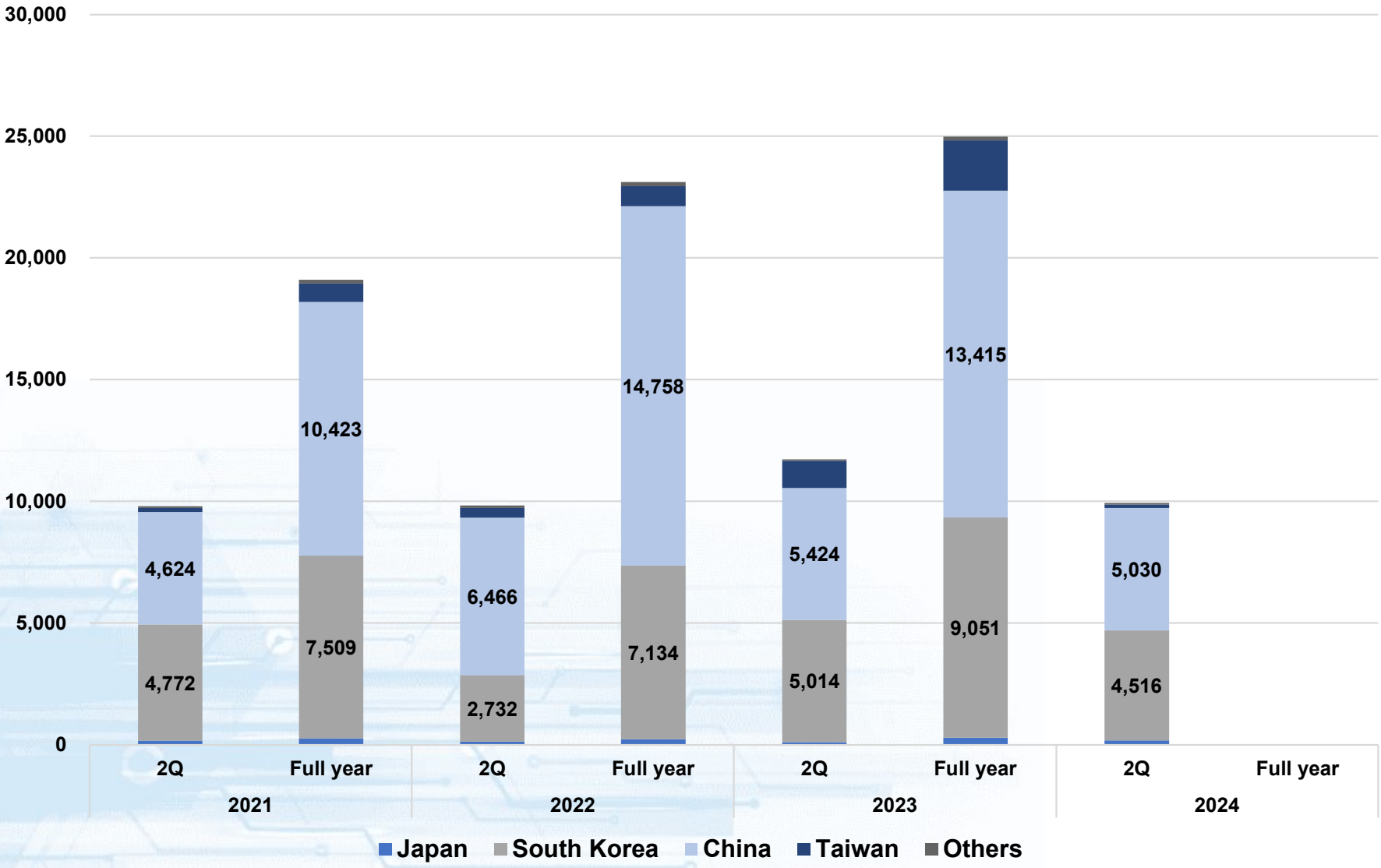
Fiscal year ended December 2023 Unit: %



Second quarter of fiscal year ending December 2024 Unit: %

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Net Sales Composition by Region (2)



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Fiscal Year Ending December 2024
Full-Year Market Environment Outlook

- ✓ Inflation in Europe and the U.S. has been stabilizing and monetary policy has entered the phase of exploring the timing of monetary easing but the market environment remains fraught with uncertain factors due to geopolitical risks, etc.
- ✓ Global consumption stagnation, including electronics products, is also expected to continue
- ✓ In the semiconductor market, the expected market recovery from 2024 is delayed
- ✓ For DRAM, with HBM devices used in servers and GPUs for generative AI, DRAM prices are rising and new capital investment is expected to increase
- ✓ Capital investment in mature generation semiconductors continued in China due partly to the tension in the U.S.-China relationship but the equipment operating rate remains low at some foundries and investment is on a slowing trend
- ✓ In the Chinese market, competition with emerging manufacturers is increasing in the mature generation semiconductor area

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Full-Year Financial Forecasts

Delays in the start-up of cleaning equipment have increased more than expected on a full-year basis as well and new orders that had been anticipated have also been delayed
Forecasts have been revised downward due to the time required for originally planned cost reductions (material expenses, outsourcing expenses, etc.)

Net sales	Operating profit	Ordinary profit	Net profit
21,480 million JPY	1,460 million JPY	1,350 million JPY	900 million JPY
YoY -14.0%	YoY -44.1%	YoY -44.8%	YoY -45.5%

- ✓ **Delays in start-up of cleaning equipment for a South Korean memory manufacturer and the U.S. and Chinese foundries**
- ✓ **Profit decreased due to a decrease in sales, change in product mix and failure to achieve cost reductions in material and outsourcing expenses**
- ✓ **Focus on sales, intended for making up for the situation with orders in the first half, did not succeed due to stagnant market conditions and competition from emerging local manufacturers**
- ✓ **However, we have abundant outstanding orders and will focus on developing and manufacturing equipment that meets customer needs and on strengthening our business structure during this period of "crouching" for the next leap forward**

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2. Topics for the Fiscal Year Ending December 31, 2024

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Topics for the Fiscal Year Ending December 31, 2024

Achieved several results for the next phase of growth

1. Awarded a contract for R&D of the next-generation semiconductor manufacturing technology from Rapidus

   Completed R&D work (α machine)
   Transitioned to R&D work related to prototype equipment fabrication (β machine)

2. Awarded Subsidy for Large-Scale Growth Investment in Labor-Saving and Other Measures to Raise Wages for Small- and Medium-Sized Enterprises (SMEs)

   Realization of Expansion of Production Capacity, Improvement of Productivity and Acceleration of Research and Development through Construction of New Head Office Plant project

3. Sale of strategic model BW3500 started

   Batch-type 300-mm wafer cleaning equipment
   BW3500, the successor to the BW3000, is expected to stimulate demand for replacement of other companies' products with an eye on production equipment for 28-nm and beyond, as well as demand for replacement of our own products
   Intention to establish technological superiority over emerging local manufacturers

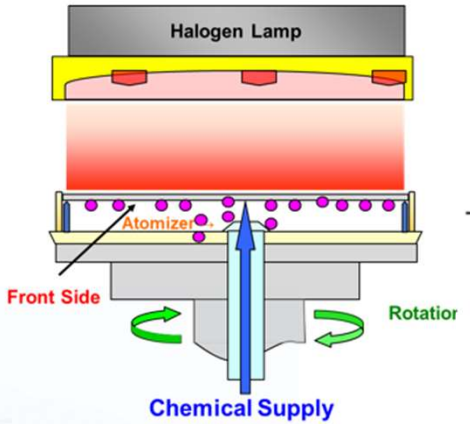
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Topics　Awarded a contract for development work from Rapidus

- Rapidus entered a strategic partnership with IBM for the development and production of 2-nm semiconductors
- Rapidus aims to achieve “semiconductor manufacturing faster than any other company” in high-mix, low-volume production with a focus on all single-wafer types
- Manufacturing equipment is basically from IBM’s line but, for the phosphoric acid etching process, IBM’s line does not have a single-wafer type, requiring separate development (underway by J.E.T.)
- With the R&D phase (α machine) completed, it is currently in the R&D (β machine) phase related to prototype equipment fabrication
- We aim to deliver the product to a mass production line in 2027



Rapidus Chitose Plant (IIM)
Construction started in September 2023
Prototype production line scheduled for launch in 2025 and mass production line in 2027





HTS-300

Reference: J.E.T. single-wafer equipment

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Topics　Awarded METI Subsidiary

Project for construction of the new Head Office and Plant adopted as a project eligible for the Subsidy for SMEs Growth Investment

Up to 5.0 billion JPY for the project funds, with a subsidy rate of 1/3 or less

01. Introduction

Application Guidelines > 1. Program Overview > (1) Purpose of the program
> (2) Maximum subsidy amount (subsidy rate)

Program Overview

02/37



Purpose of this subsidy	To assist small- and medium-sized enterprises that support local employment to achieve sustainable wage growth in local regions by promoting large-scale investments made by these enterprises to address pressing issues such as labor shortages and to grow

Investment scale
1 billion yen or more is eligible

Maximum subsidy
5 billion yen
(subsidy rate: 1/3 or less)

Summary

Application call period	Until 17:00, Friday, August 9, 2024
Announcement of awarding	Scheduled for mid-late September 2024
Application method	e-Application by jGrants *Non-electronic applications are not accepted

Second call for applications now open

Source: A briefing material on the Subsidy for SMEs Growth Investment, obtained from the Ministry of Economy, Trade and Industry (METI) website　Note: J.E.T. applied for the first call for applications and was selected

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Topics Background, Objectives and Investment Details of the Subsidized Project

Background and objectives of the subsidized project

(1) Production capacity issue:
There was a need to secure space for realizing production reform to improve production capacity

(2) Productivity issue:
- The number of parts required to manufacture one unit of cleaning equipment is 20,000 to 30,000. With the increase in production volume, conventional use of manual labor for storage, management and picking has become inefficient
- Leasing of an outside warehouse to address lack of space for storing parts at the Head Office Plant has led to increased costs

(3) R&D issue:
The chemical supply and discharge piping we have is only adequate for one experimental machine, making it impossible to conduct more than one experiment simultaneously
(Causing slower response to customers and development)
-> Build a new head office plant as a subsidized project to solve issues (1) through (3)

Total project cost

Approx. 12 billion JPY

Capital investment description

- Project location
  - Okayama Prefecture (site: approx. 2.5 ha)
- Capital investment description
  - Construction of a new head office plant
    * Extend the work space by area expansion
    * Introduce automated warehouses for parts to save labor and improve efficiency
    * Expand the R&D lab to enable simultaneous experiments on three machines
    Introduce a set of other equipment required for manufacturing
    (Examples: machine tools, deionized water facilities, receiving/shipping facilities, etc.)

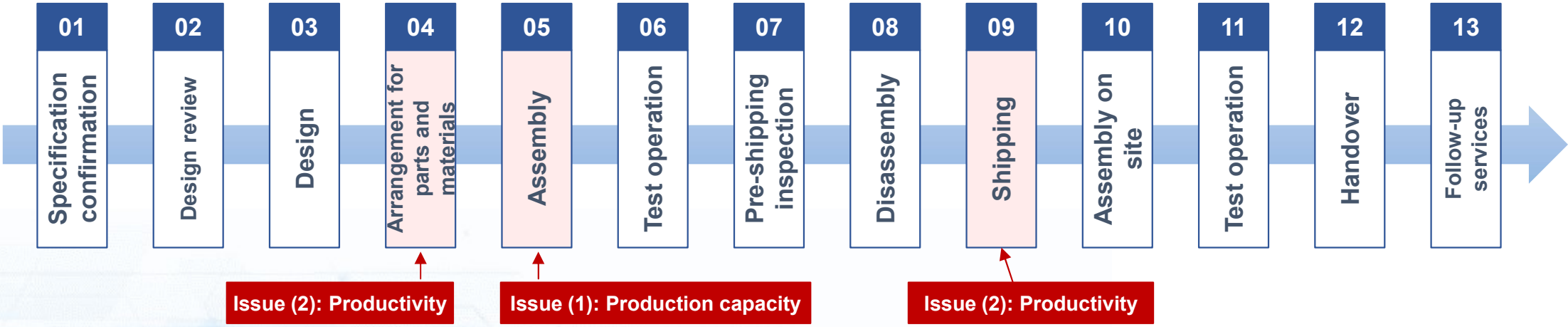


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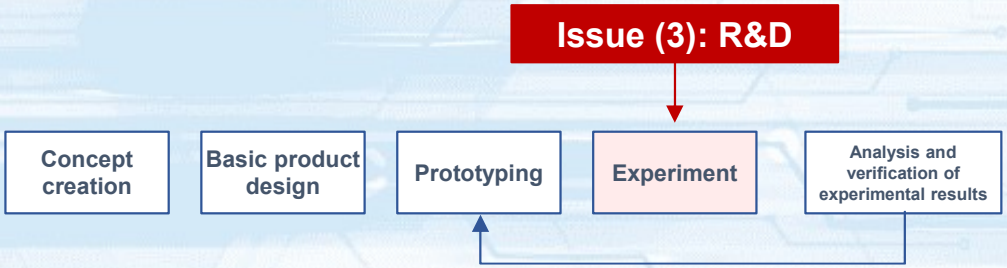
Topics　Productivity Issues

<Manufacturing flow>

- Discuss our manufacturing flow with the customer, design, arrange for parts and materials and perform assembly and test operation.
- After confirming that the equipment works without problems, disassemble and transport it to the installation site by plane or ship and dispatch workers to the site for assembly.
- After assembly, conduct test operation to confirm that it works without problems and hand it over to the customer. Then, provide follow-up services as appropriate.



<R&D flow>



- J.E.T.'s R&D includes the following two types.
  - Development of new technologies and products
  - R&D related to customization of existing equipment at the time of replacement
- In both types of R&D, experiment with an experimental machine is essential.
- Because the experiment uses chemicals (sulfuric acid and phosphoric acid), a system for chemical supply and waste liquid collection is indispensable.

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Topics Solving Issues by Construction of a New Plant

	Issue (1): Production capacity	Issue (2): Productivity		
	Lack of manufacturing space	**Receiving and shipping areas**	**Parts picking**	**Lack of parts storage space**
Current status	• With the current size of the manufacturing space (clean room), only up to 10 units can be manufactured at the same time • Standard time required to manufacture one unit is around four months and the maximum annual production capacity is 30 units • Orders are increasing steadily but production capacity is becoming insufficient, requiring longer time to delivery, and timely landing of orders is no longer possible	• The plant has become too small and been repeatedly expanded and remodeled, resulting in cases where trucks cannot pull up to the receiving and shipping areas (especially receiving area) • Receiving and shipping areas are at the same level as the ground and small, making loading and unloading inefficient • Currently, forklifts are used to handle the situation but there is a high risk of damage during the movement of goods	• Manufacturing cleaning equipment requires 20,000 to 30,000 parts per unit • Currently, parts are stored and picked manually using barcodes but work efficiency is extremely poor due to the large number of parts • The number of parts that need to be stored at the same time has increased with the increase in orders and we are barely managing to store them, which makes flow lines and work inefficient	• Number of parts that need to be stored at the same time increased as orders increased • Cleaning equipment is as large as 2 x 7 x 2 (W x D x H) m, with large-sized parts • The plant has become too small and storage space insufficient. Leasing an external warehouse in Higashi-Hiroshima City, Hiroshima Prefecture, has been a factor in increased costs and longer lead-times
	 Equipment manufacturing space has capacity only for 10 units		 Parts storage (barcode control)	 Outside warehouse currently used to address lack of storage space
Subsidized project	• **Secure space for realizing production reform to improve production capacity** • Achieve faster delivery and timely landing of orders by realizing production reform	• For the new Head Office Plant, **improve flow lines for receiving and shipping areas and introduce dock levelers, etc.** • Improve efficiency of loading and unloading operations and reduce the risk of damage during the operations	• For the new Head Office Plant, expand the storage space and **introduce automated picking equipment** • Improve productivity by saving labor and improving efficiency for allocating personnel to higher value-added processes	• After the completion of the new Head Office Plant, **use the current Head Office Plant as a warehouse and consolidate external warehouses** • The current Head Office Plant can also be used as an emergency production base

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Topics　BW3500

Twenty years have passed since the development of the mainstay BW3000 and BW3500 has been developed as a successor model to better meet customer needs

-> Capable of 28-nm and larger processes, the focus of investment in the future

-> With a view to replacement of other companies' products for RCA cleaning

Improvements from BW3000

1. **Reduced footprint (15-16% reduction in equipment area and 20% reduction in overall equipment length)**
2. **Adoption of a new transfer method (Transfer by Moving/Single Lifter in addition to transfer arm)**
3. **Environmental and safety measures (Provision of dedicated OHT port and improvement of airtightness to reduce leaking out of chemical atmosphere)**
4. **Damage prevention measures (employment of resin tanks)**
5. **Improved operability (larger and colored operation screens, increased amount of information)**

In addition, one-bath processing, metal ion measures, new exhaust system, reduced chemical usage, improved throughput and a new drying system have been adopted



BW3500

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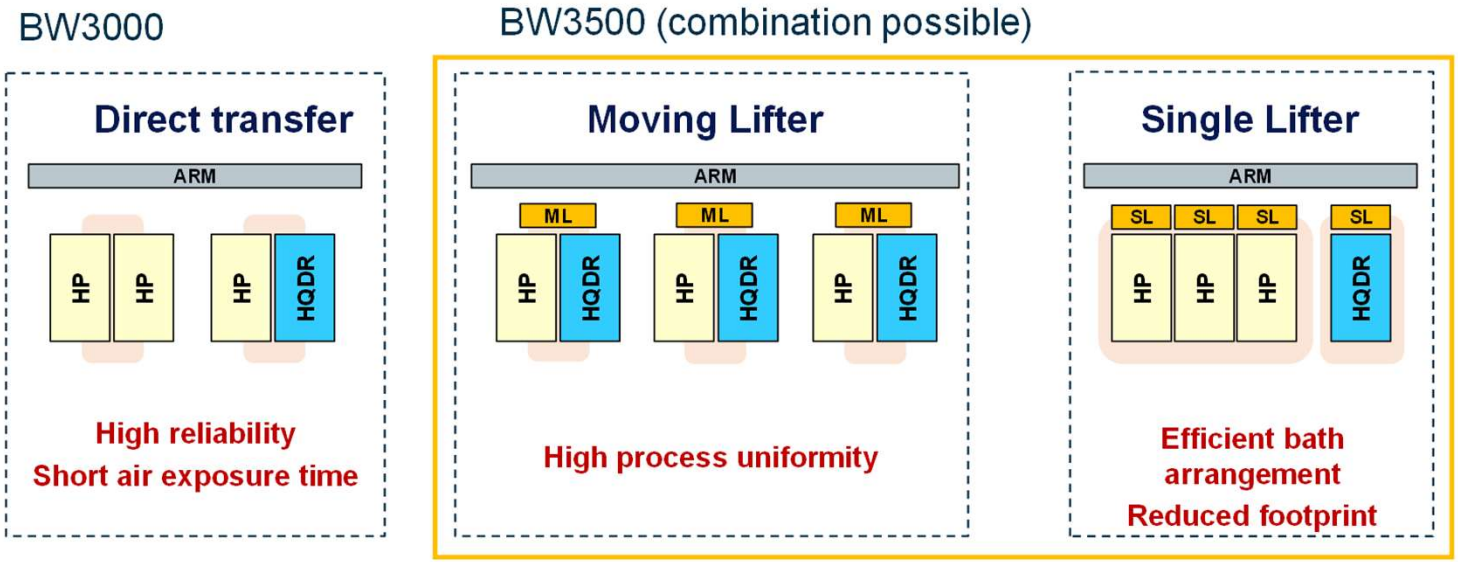
Features the capability of high-precision processes

3. Comparison with BW3000
-Comparison with BW3000-

J.E.T CO., LTD.

■ **Support for high-precision processes through the addition of new module configurations**

In addition to J.E.T.'s standard sequential arrangement of chemical chambers, a structure with the basic module of chemical + DIW with no difference between baths can be selected for process-critical processes



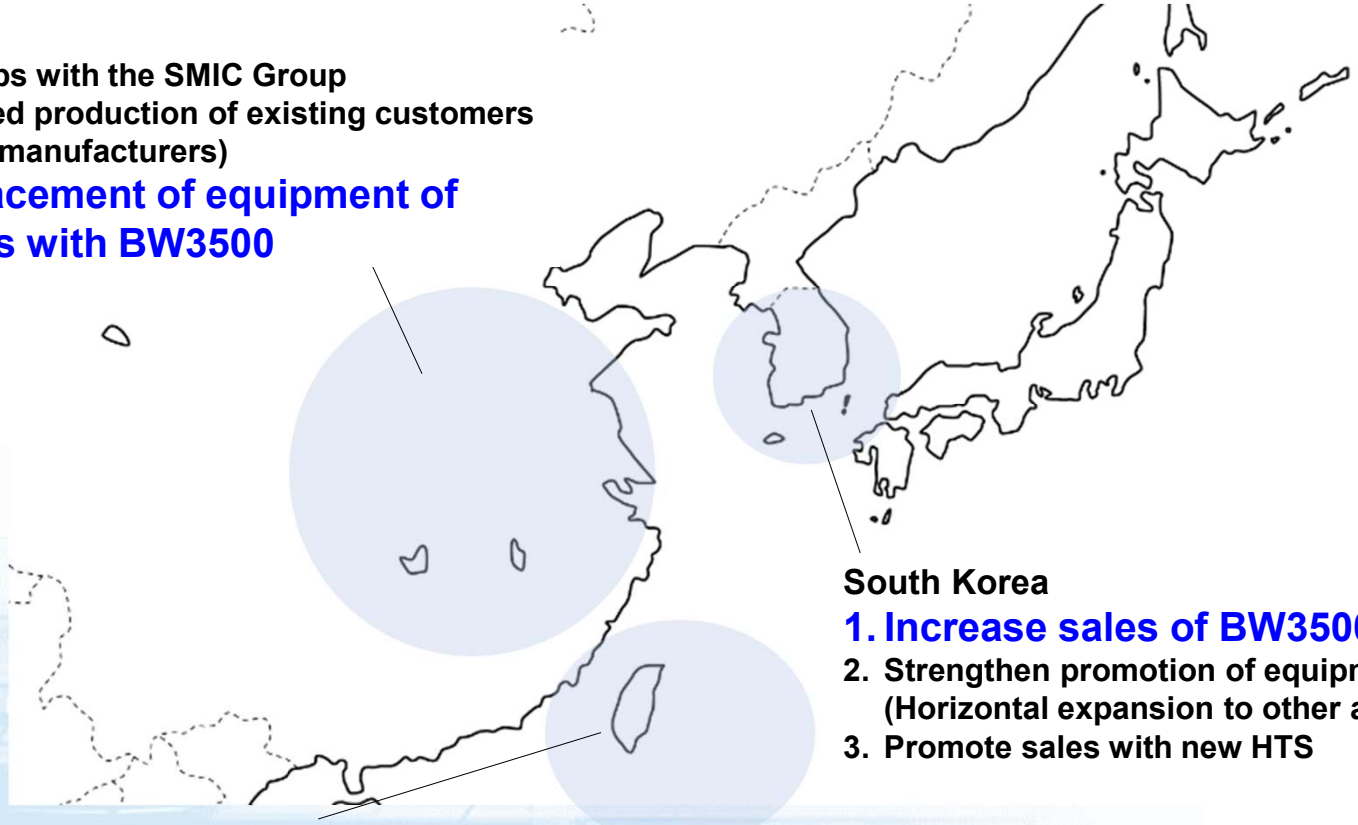
Source: J.E.T.'s sales data

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Topics　BW3500 Area Strategy: East Asia

Completed development of BW3500, a key product for main area strategies such as in China, South Korea and Taiwan and began sales

China
1. Maintain relationships with the SMIC Group
2. Respond to increased production of existing customers (foundries, memory manufacturers)
3. **Accelerate replacement of equipment of other companies with BW3500**



South Korea
1. **Increase sales of BW3500 at Samsung**
2. Strengthen promotion of equipment capable of SiC (Horizontal expansion to other areas)
3. Promote sales with new HTS

Taiwan
1. Give priority to promotion of HTS/03 for TSMC (Horizontal expansion to other areas)
2. Maintain relationships with existing customers
3. **Accelerate replacement of equipment of other companies with BW3500**

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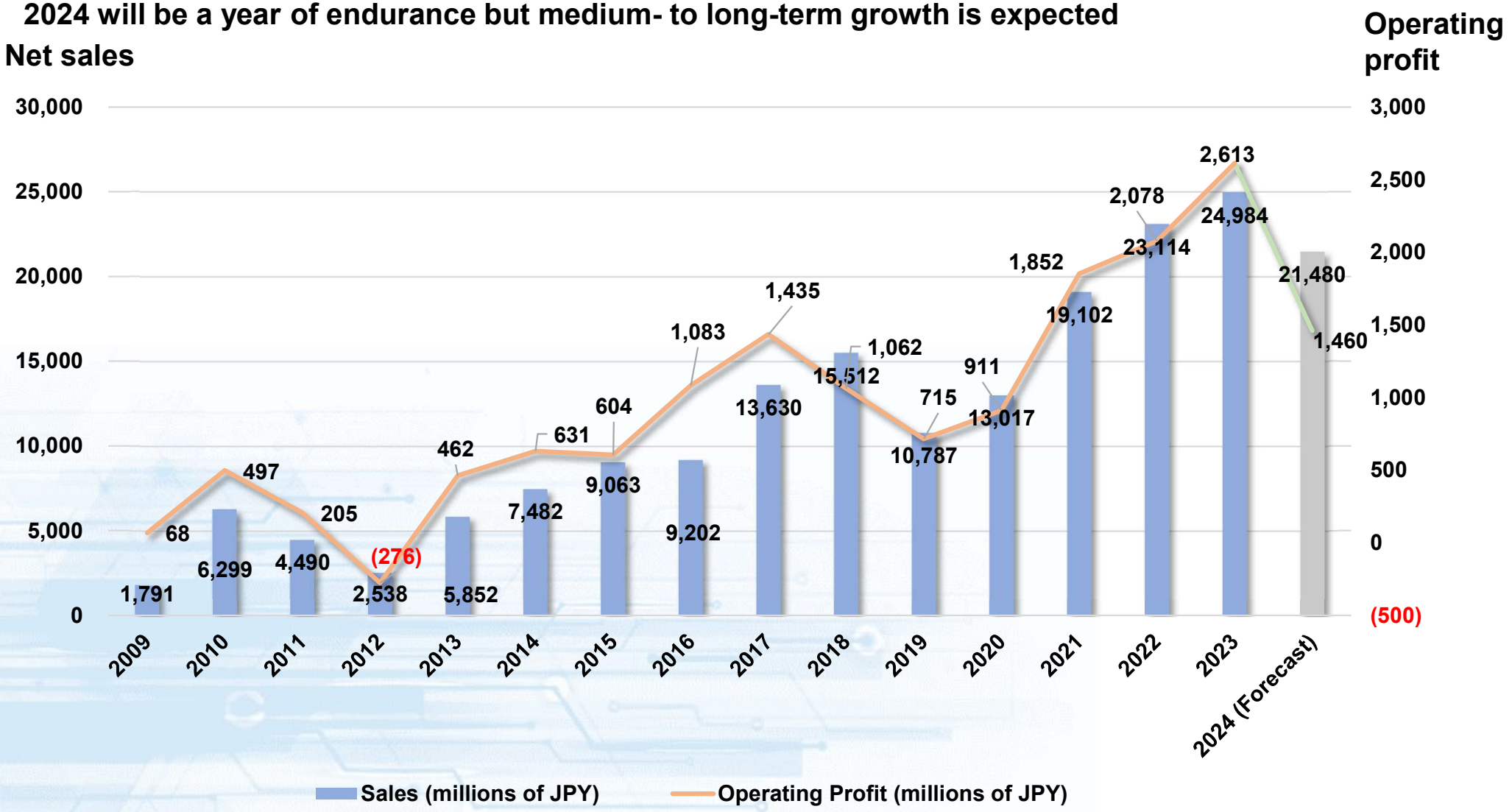


3. Future Growth Strategies

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Trends in the Long-Term Consolidated Results (Net Sales and Operating Profit)

While being affected by the silicon cycle, our net sales and operating profit have grown up to now as the demand for semiconductors increased
2024 will be a year of endurance but medium- to long-term growth is expected

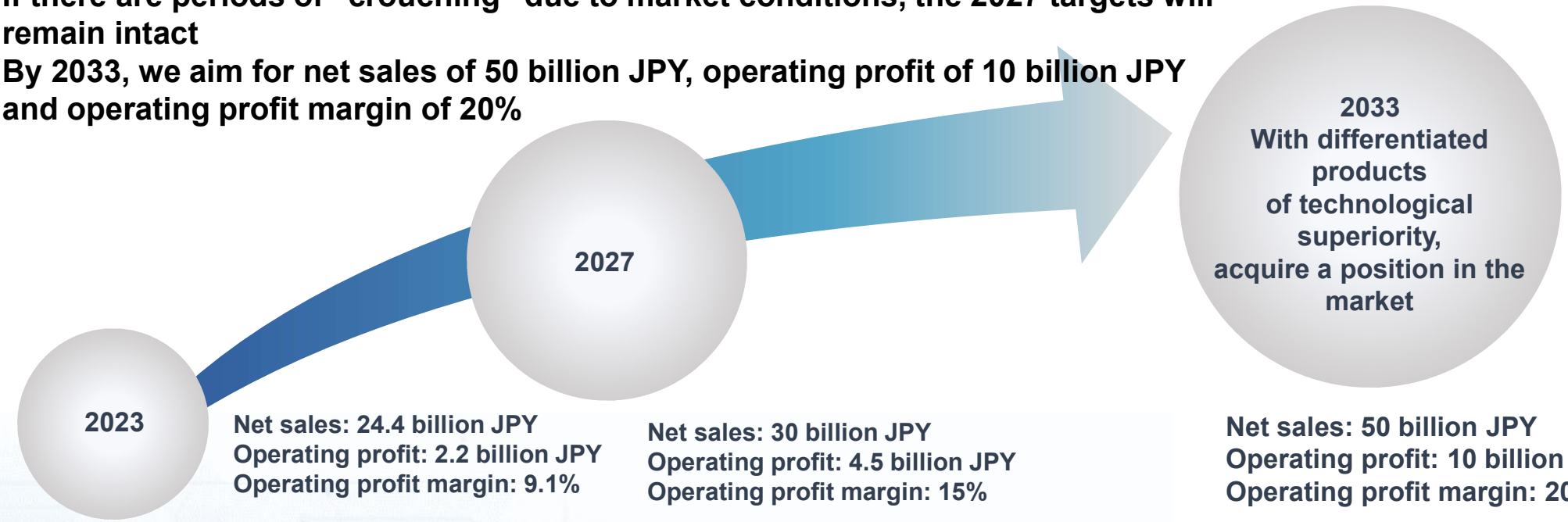


Note: Figures for 2019 and therebefore are unaudited by an audit firm and are provided for reference only

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Medium- to Long-Term Numerical Targets and Strategies on Four Axes

If there are periods of “crouching” due to market conditions, the 2027 targets will remain intact
By 2033, we aim for net sales of 50 billion JPY, operating profit of 10 billion JPY and operating profit margin of 20%

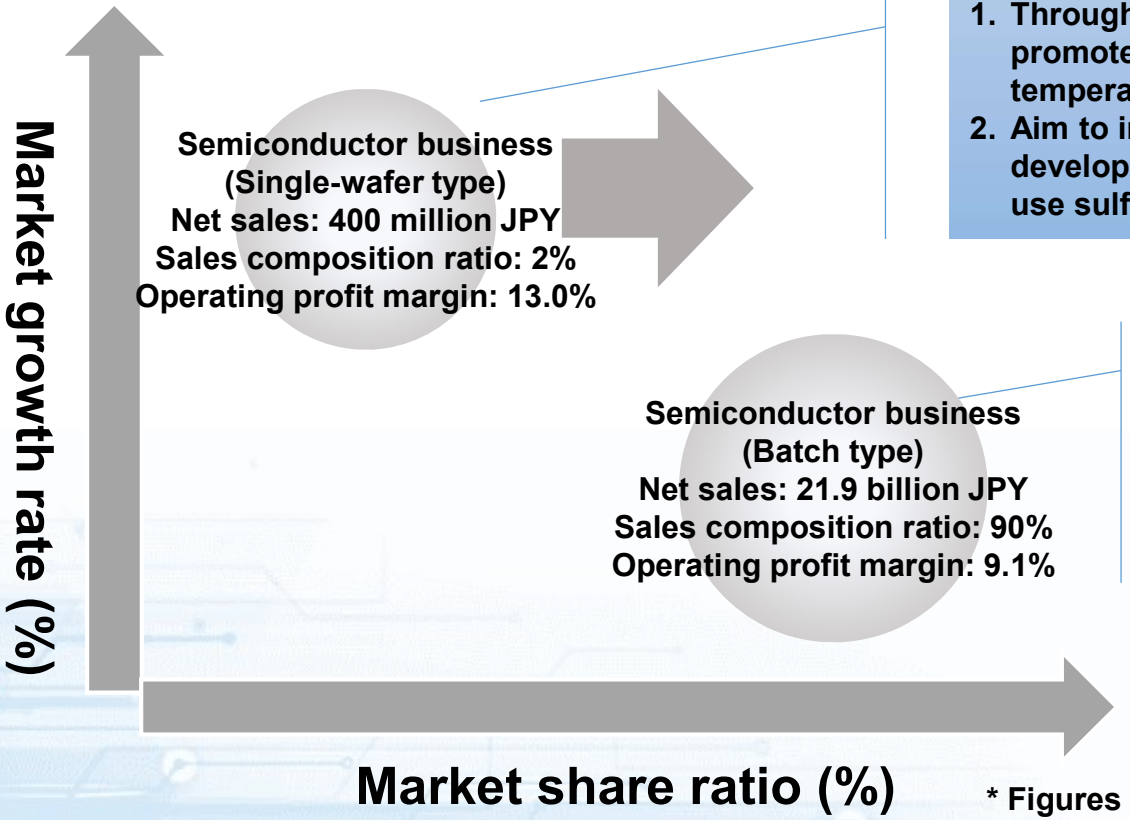


Product Strategy	Area Strategy	Organization Strategy	Manufacturing Strategy
• Batch-type cleaning equipment Promote high customizability in configuration and number of processing chambers • Single-wafer-type cleaning equipment • Promote the capability of handling high-temperature, high-viscosity chemicals for differentiation • GX measures Take GX measures such as development of cleaning equipment that does not use sulfuric acid	• Major markets (South Korea, China and Taiwan): Promote transaction strengthening through existing relationships • U.S. market: Establish a local subsidiary to focus on customer development, especially in “legacy semiconductor areas” • Japanese market: Strengthen development of manufacturers of automotive semiconductors, where Japan has a strong advantage, and manufacturers returning to the Japanese market	• Establishment of the System Design Department J.E.T.’s strengths are high customizability and technology of high-temperature, high-viscosity processing. Develop a top-notch technical sales force under the guidance of President Bouno to achieve high-quality proposal-based sales • Strengthening of sales: First entry into the U.S. and first entry into Japan in 15 years. Develop customers based on differences in business culture	• Strengthening of supply chain In the semiconductor industry, which is strongly affected by economic fluctuations, flexible production capacity is essential. Strengthen relationships with partners and promote fabless operations • Construction of a new plant: Build a new plant to expand production capacity, improve production efficiency and strengthen R&D

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Strategy Organization of the Business Portfolio for Growth

While maintaining the market share of batch-type equipment, pursue growth with differentiated single-wafer cleaning equipment



1. Through joint development with Rapidus, promote the technical capabilities of high-temperature, high-viscosity processing
2. Aim to increase the market share by developing cleaning equipment that does not use sulfuric acid, etc.

Expand into the Japanese and U.S. markets in addition to major markets while promoting the high customizability

* Figures are actual results for FY2023

- The market for batch-type cleaning equipment is expected to maintain a certain market size and grow moderately in line with the growth of the semiconductor market.
- We have an 11% share of the global market and aim to continue to expand the market share ratio.
- Single-wafer cleaning equipment is likely to remain the primary cleaning equipment in the future and the market is expected to grow significantly with the growth of the semiconductor market.
  We aim to expand our market share through the development and sale of single-wafer cleaning equipment capable of high-temperature, high-viscosity processing.

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Product Strategy

In light of global environmental issues, there is a great need for cleaning equipment that does not use sulfuric acid
We will focus on development in this area

New HTS

1. **Capability of handling processes other than sulfuric acid**
2. **Different product models offered for different chemical solutions (processes)**
3. **Track record for phosphoric acid to be established in Japan → Horizontal expansion**
4. **Track record for 03 to be established in Taiwan → Horizontal expansion**



HTS-300

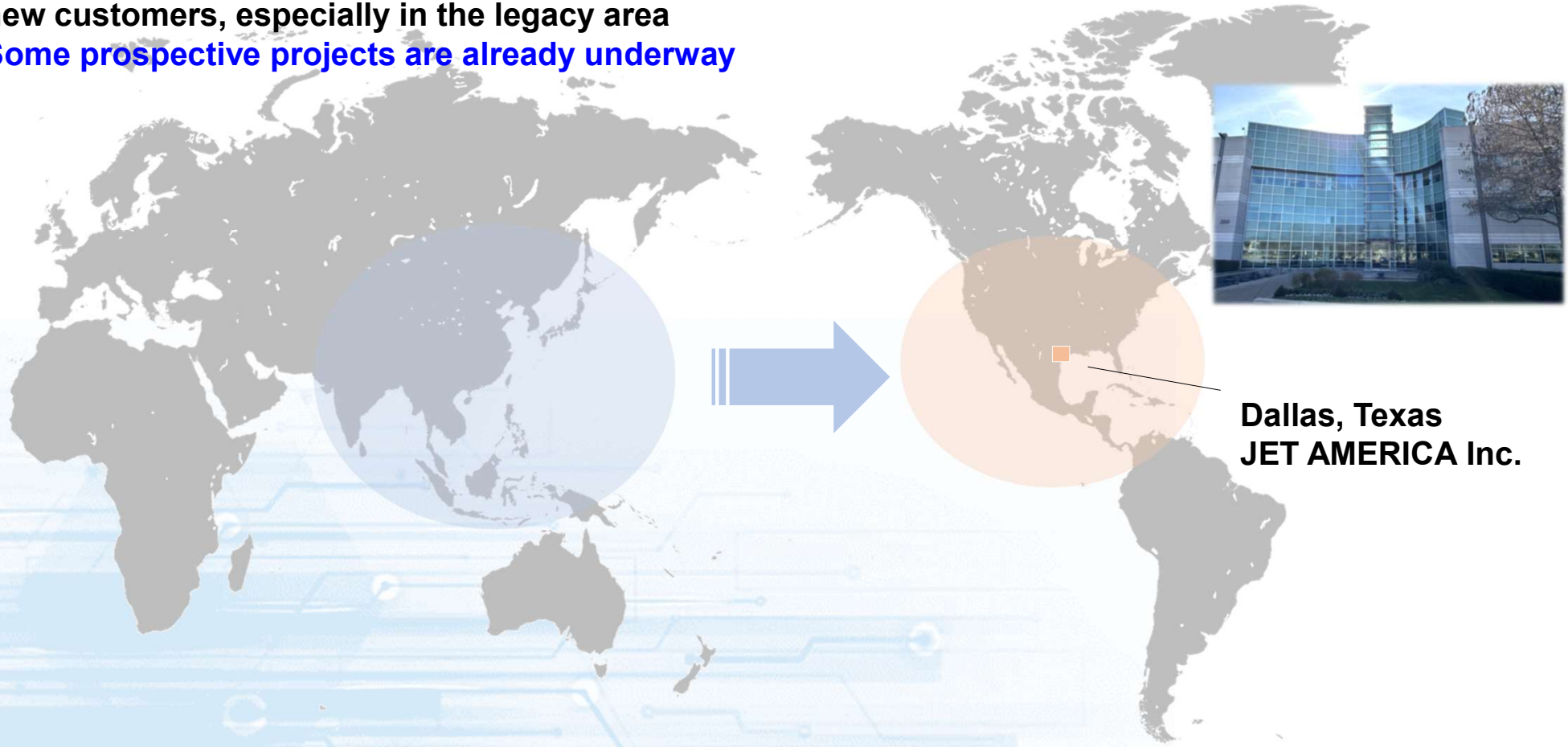
Equipment capable of SiC

1. **Track record to be established with products for Samsung Electronics → Horizontal expansion**

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Area Strategy　Market Development in North America

An order has already been received for cleaning equipment for Samsung Electronics' plant in Taylor, Texas
With this order as a toehold, a base was established in October 2023 with the focus on developing new customers, especially in the legacy area
Some prospective projects are already underway

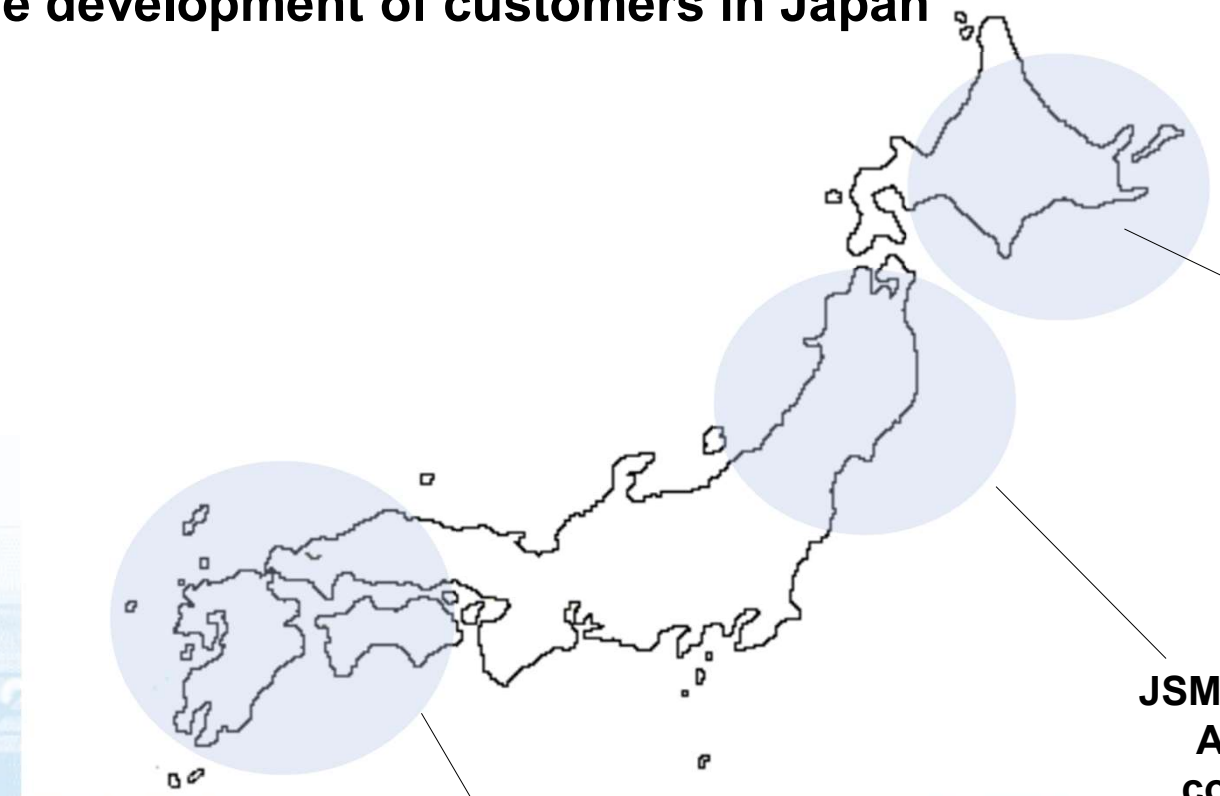


Dallas, Texas
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Area Strategy　Market Development in Japan

Strengthening horizontal development of results with Samsung Electronics and focusing on the development of customers in Japan



Single-wafer type
Rapidus
Joint development project is in progress
We will seek horizontal expansion of developed models

JSMC was founded in August 2023
A foundry is scheduled to be constructed in Kurokawa-gun, Miyagi Prefecture
We have delivered products to PSMC

Various semiconductor-related investment projects are concentrated
We plan to focus on developing customers for automotive and power semiconductors

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Appendix

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Company Overview

Engaged in development, manufacture, sales, and after-sales service of semiconductor cleaning equipment

Our forerunner is S.E.S. Co., Ltd. (“S.E.S.”), which commenced civil rehabilitation proceedings during the semiconductor recession in the aftermath of the collapse of Lehman Brothers and subsequently went into bankruptcy
In order to take over S.E.S.’s outstanding technologies for semiconductor cleaning equipment,
we were established on April 24, 2009, as a wholly owned subsidiary of ZEUS CO., LTD. (“ZEUS”), a Korean company that was a sales agent of S.E.S. In May 2009, **we launched our business as we acquired S.E.S.’s Okayama Plant in a business transfer**

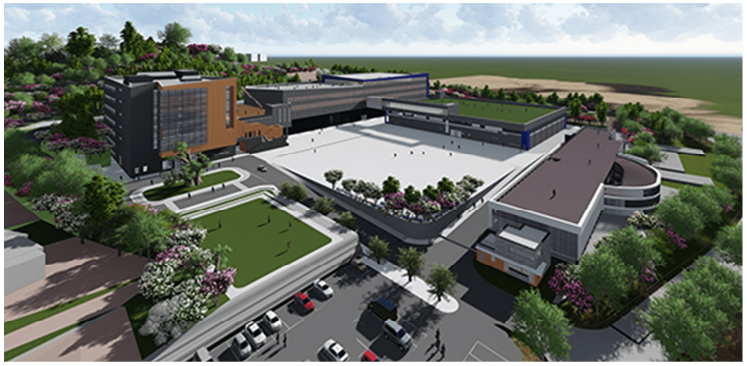
Company Overview

Name	J.E.T. Co., Ltd.
English Name	J.E.T. Co., LTD.
Establishment	April 2009
Capital	1,848 million JPY (as of December 31, 2023)
Address Phone	6078, Shinjo Kanayama, Satosho-cho, Asakuchi-gun, Okayama 0865-69-4080
Representative	Masayuki Bouno, Representative Director and President
Number of Employees	171 298 Note: Total number of employees, including consolidated subsidiaries (as of June 30, 2024)
Business summary	Development, manufacture, sales and after-sales service of semiconductor cleaning equipment
Main Customers	Samsung Electronics (South Korea), SMIC (China)

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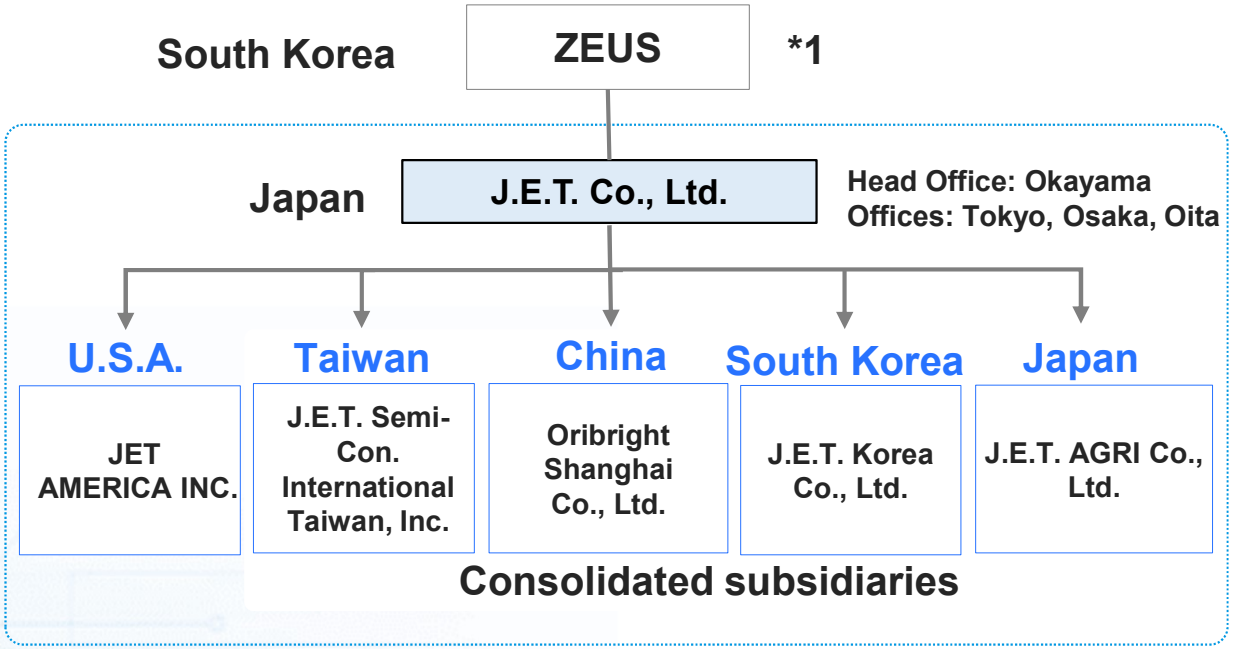
Group Relationship Diagram

Our business is separate from that of ZEUS, our parent company. We have no competitive relationship with them, and our management aims to be highly independent of them by eliminating the acceptance of officers and employees on secondment



Address: Hwaseong City, Gyeonggi Province, Republic of Korea
Capital: 5,192 million KRW
Description of business:
Manufacture and sales of various manufacturing equipment for semiconductors and liquid crystal
Percentage of voting rights held in our company: 66.4% (direct)
Relationship with the related party: Business transactions
Description of transactions:
Sales and purchase of parts, materials, etc., and outsourcing of equipment manufacturing operations between the two companies, and payment of sales commissions, etc., from us to ZEUS

Relationship Diagram



*1: Listed on KOSDAQ (a stock exchange in South Korea)

Note: Until the end of April 2022, we had one part-time director from ZEUS. From May 2022 onward, we have no officers or employees on secondment or otherwise accepted from ZEUS.

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Offices

- Offices in Japan
- Offices outside Japan



Office in South Korea
22 employees

J.E.T. Korea Co., Ltd.

Oribright Shanghai Co., Ltd. Beijing Office

Oribright Shanghai Co., Ltd. Wuxi Office

Oribright Shanghai Co., Ltd. Hefei Office

Oribright Shanghai Co., Ltd. Xi'an Office

Oribright Shanghai Co., Ltd. Guangzhou Office

Oribright Shanghai Co., Ltd. Shanghai Head Office



Offices in China:
75 employees

Note: Some offices in China have been omitted.

Osaka Office (*2)

Tokyo Office (*1)

J.E.T. Co., Ltd.

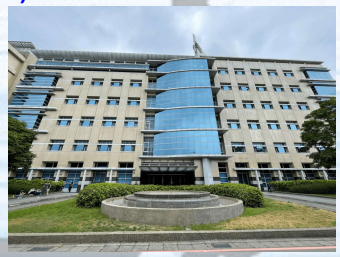
Kyushu Branch (*1)

- Head Office
- Kasaoka Farm (*3)

Head Office



J.E.T. Semi-Con. International Taiwan, Inc.
(HEAD Office) Taiwan Head Office



Office in Taiwan 27 employees

J.E.T. Semi-Con. International Taiwan, Inc.
(Singapore branch) Singapore Branch

Singapore: 3 employees



JET AMERICA INC.

Office in the United States: 2 employees

*1 At the Tokyo Office and Kyushu Branch, we provide field services to our customers.
*2 Osaka Office is in charge of LIB product sales.
*3 At Kasaoka Farm, J.E.T. AGRI Co., Ltd., our consolidated subsidiary, grows tomatoes.

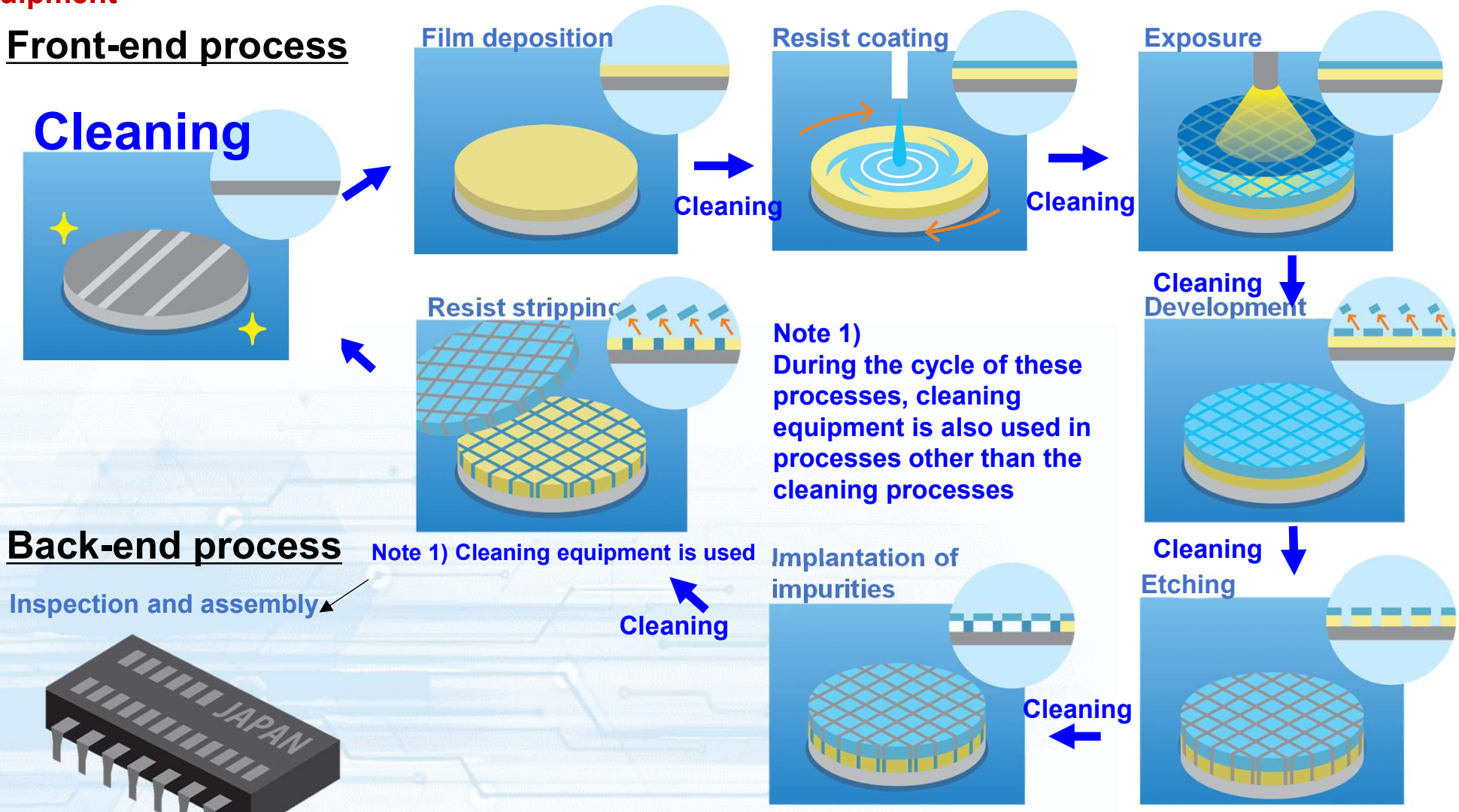
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Semiconductor Manufacturing Process—Front-end Process

Cleaning is extremely important in the front-end process (which includes more than 500 steps) of semiconductor manufacturing

30–40% (based on the number of steps) of the front-end process is estimated to involve the use of cleaning equipment

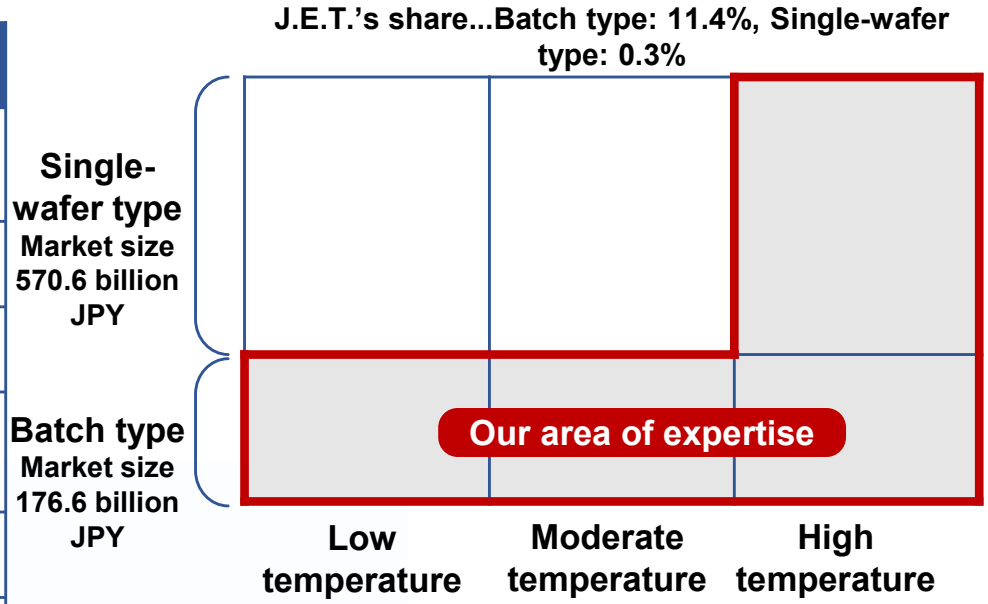
Front-end process



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Semiconductor Cleaning Equipment　Batch Type and Single-Wafer Type—Our Area of Expertise

		Batch-type cleaning equipment	Single-wafer-type cleaning equipment
Summary		20 to 50 wafers batch-cleaned	Wafers cleaned one by one
Advantage		It is highly productive	Precision cleaning is possible
Disadvantage		It can easily pick up wafer dust	It causes low productivity
Current status		Due to its superior productivity, maintains a certain share	Currently the mainstream cleaning equipment
High-temperature, high-viscosity processing	Features	Easy to maintain process temperature	Difficult to maintain process temperature
	Sulfuric acid	++ (mainstream)	+ (partially supported)
	Phosphoric acid	++ (mainstream)	- (not supported)
Market size (2022/Global)		176.6 billion JPY (J.E.T.'s share: 11.4%)	570.6 billion JPY (J.E.T.'s share: 0.3%)



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Competitive Landscape and Differentiators

We believe that Japanese companies have had more than a 70% share in the semiconductor cleaning equipment market since the 2000s, and Company A and Company B have a particularly strong presence

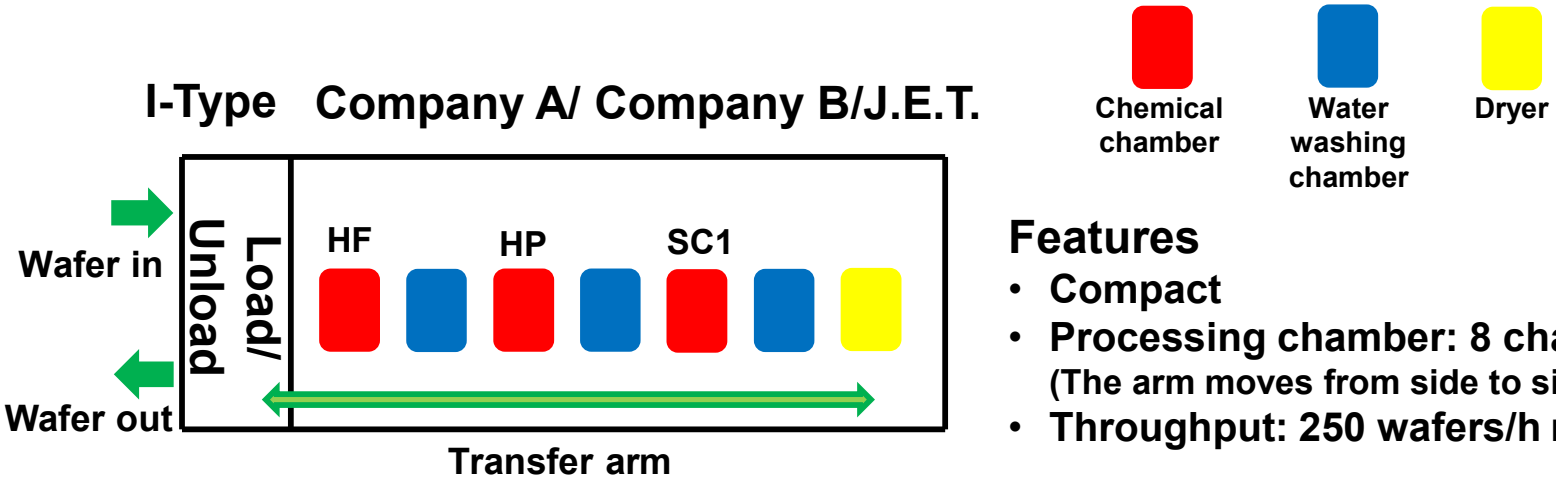
		J.E.T.	Company A	Company B
Company Size (Net Sales/Operating Profit for Recent Fiscal Year)		24.4 billion JPY (2.2 billion JPY)	460.8 billion JPY (76.5 billion JPY)	2,209 billion JPY (617.7 billion JPY)
Market Share (Fiscal 2022 Market Size)	Batch type (176.6 billion JPY)	11.4% (20.2 billion JPY)	47.8% (83.5 billion JPY)	28.8% (50.8 billion JPY)
	Single-wafer type (570.6 billion JPY)	0.3% (1.1 billion JPY)	48.5% (217 billion JPY)	28.3% (152.3 billion JPY)
Technologies:	RCA Cleaning (hydrofluoric acid/ ammonia water addition)	+	+++	++
	Sulfuric acid cleaning	+++	++	+
	Phosphoric acid cleaning	+++	++	+
	Others	++	+	++
Production Capacity		+ (Mass production capacity low)	+++ (Mass production capacity provided)	+++ (Mass production capacity provided)
Customizability		+++ (Strength in customizability)	+ (Strength in standardized equipment)	+ (Strength in standardized equipment)

Source: Ministry of Economy, Trade and Industry “Strategy for Semiconductors and the Digital Industry, June 2023”; evaluation is based on our own recognition

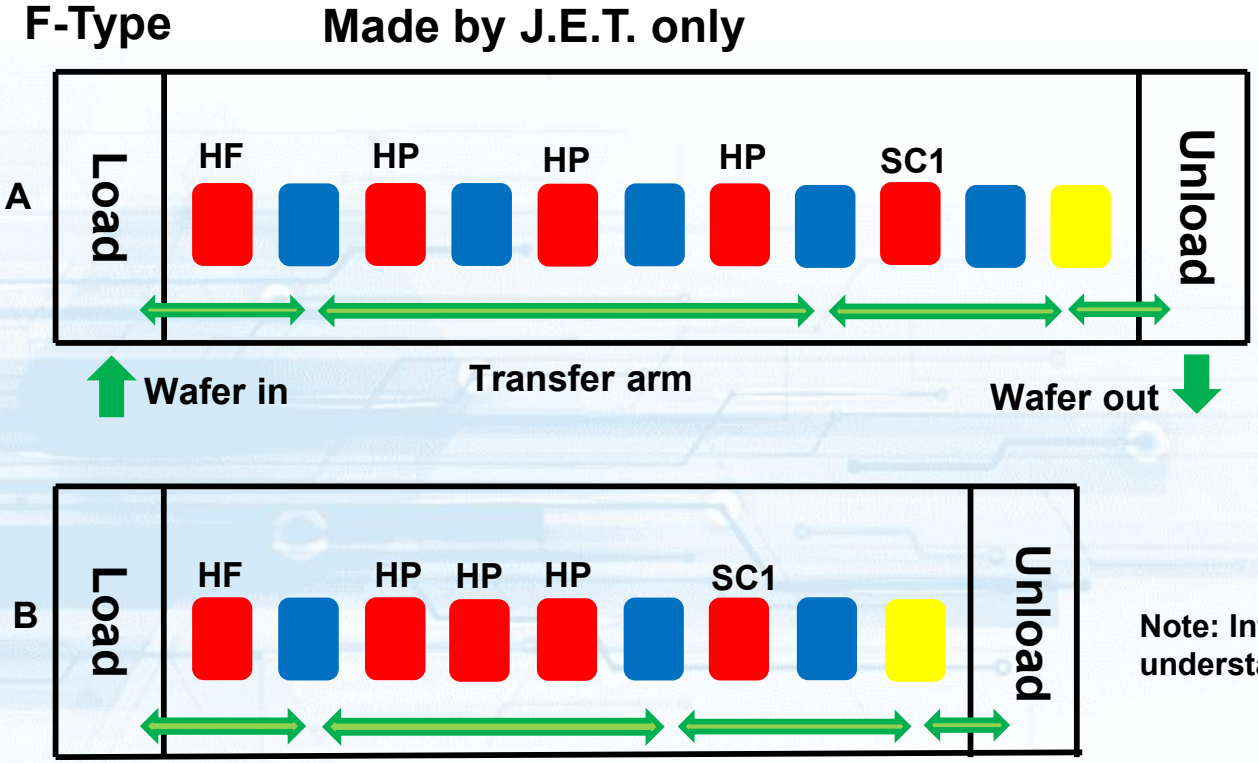
- Our competitors are large companies with sales in the hundreds of billions of JPY to trillions of JPY and their strength lies in their ability to mass produce high-quality, standardized equipment
- Although we lack mass production capacity, we have an advantage in difficult high-temperature, high-viscosity processing and high customizability
  We as an agile company are gaining market share by entering niche areas that are difficult for large companies to enter

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JET batch-type equipment advantages
➡ The only equipment with F-Type



Features
- Compact
- Processing chamber: 8 chambers max.
  (The arm moves from side to side, causing jams)
- Throughput: 250 wafers/h max.



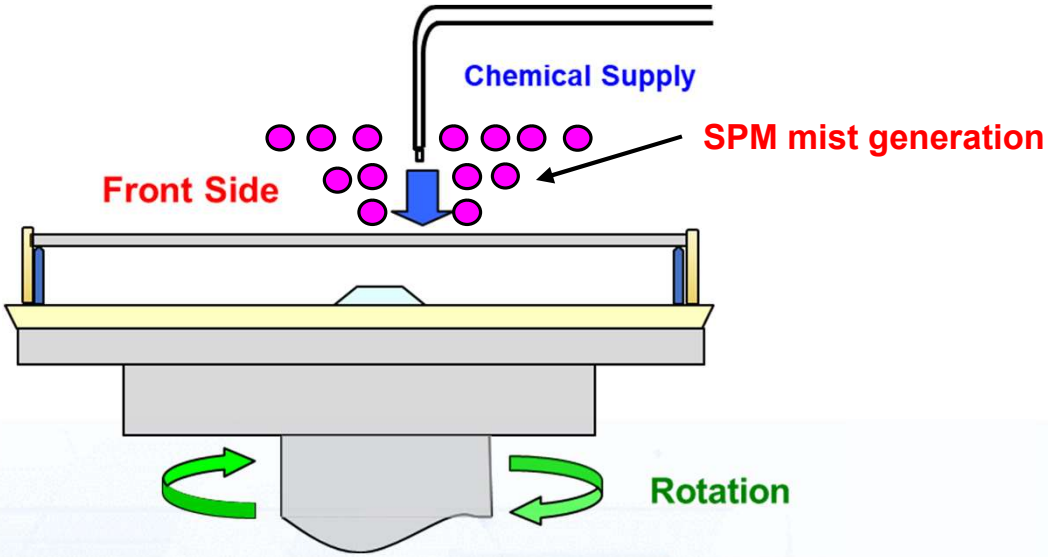
Features
- A little large
- Processing chamber: 14 chambers max.
  (Because the one-way arm prevents jams)
- Can be selected from A or B
- B enables sequential arrangement of chemical chambers
- Often used for sulfuric acid/phosphoric acid cleaning at high temperatures
- Throughput: 500 wafers/h max.

Note: Information is based on our own understanding as of December 2023.

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J.E.T. Single-Wafer-Type Equipment Advantages

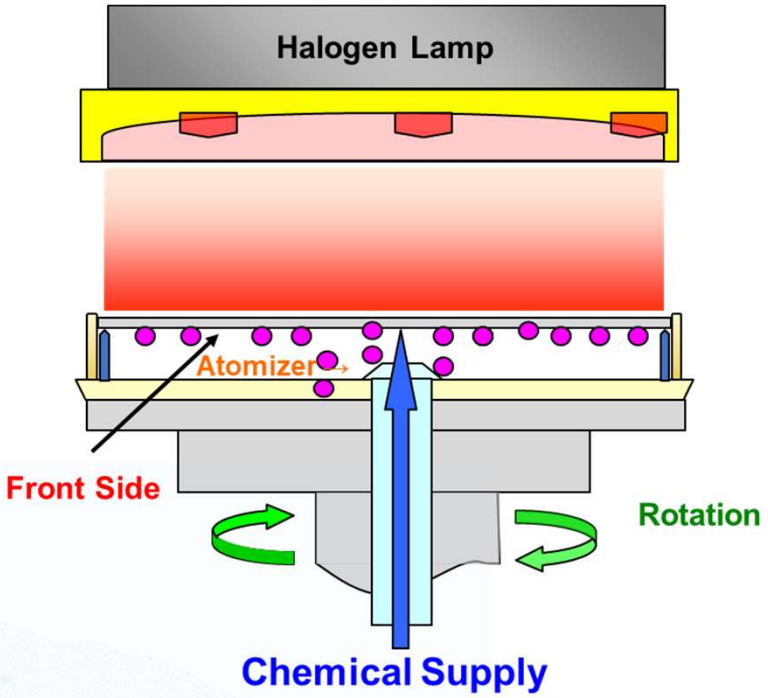
Company A/B single-wafer-type SPM system



Features

- Processing temperature: 150–200ºC
- Uses chemical reaction heat
  - ➡ Difficult to maintain high temperature even when continuously applying chemicals
- Process time: 5 min/HDI resist wafer (see notes)
  - ➡ Required chemical amount: 3,000 ml/wafer (due to the necessity to continuously apply the chemical for 5 minutes)
- SPM mist generates more particles

J.E.T. single-wafer-type SPM system (HTS -300)



Features

- Processing temperature: 200–240ºC
- High temperatures are maintained with a halogen lamp
- Inverted processing surface to use atomized chemicals
- Process time: 0.5 min/HDI resist wafer
  - ➡ Required chemical amount: 150 ml/wafer
- No diffusion of SPM mist and the amount of particles generated is small

Note: HDI resist wafer = resist wafer with cured layer
Note: Information is based on our own understanding as of December 2023.

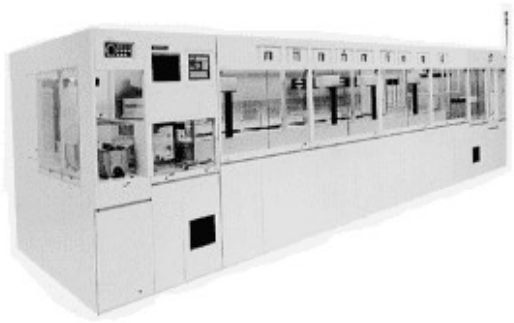
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Our Main Products (1)

	BW3000	BW3700
		
Cleaning type	**Batch-type cleaning equipment Compatible with 300-mm wafers**	**Batch-type cleaning equipment Compatible with 300-mm wafers**
Features	○ Flexible configuration to meet customers' requirements (the arrangement and the number of cleaning chambers can be changed according to the customer's request) ○ Improvement in production efficiency ○ High-Speed LD/ULD compatible with 500 WPH ○ Small equipment footprint: The number of installations in a plant can be increased ○ Reduction in carbon dioxide ○ Controlled gas flow ○ Reduced start-up time by standardized specifications ○ Compatibility with SEMI standard ○ Compatibility with EES (in either EDA or TDI formats)	○ Small equipment footprint: The number of installations in a plant can be increased ○ Stabilization of throughput of each processing chamber through individual piping in the exhaust system ○ Processing with a 7-mm pitch between wafers ○ Reduction in generation of particles (fine dust) by achieving a reduction of the contact point of wafers ○ Reduction in bubble generation ○ Improved efficiency in liquid replacement by a reverse flow system ○ Improved stability in concentration ○ Compatibility with a wide variety of processing chambers ○ Compatibility with the 1 chemical solution plus 1 DIW configuration
Price range (average unit price) (millions of JPY)	**210–400**	**320–560**

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Our Main Products (2)

	BW2000	HTS-300
		
Cleaning type	Batch-type cleaning equipment Compatible with 200-mm wafers	Single-wafer-type cleaning equipment Compatible with 300-mm wafers
Features	○ High production efficiency ○ High cleaning capacity ○ Reduced footprint ○ Flexible configuration to meet customers' requirements (the configuration and the number of cleaning chambers can be changed.)	○ Processing with a minimum chemical solution consumption of 150 cc ○ High-temperature processing up to 240ºC ○ Stripping in as short as 30 seconds ○ Prevention of fume (chemical vapor) diffusion through wafer inversion processing
Price range (average unit price) (millions of JPY)	150–210	330–540

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Notes

Precautions for handling this document

- This document has been prepared based on the Consolidated Financial Results announced on August 9, 2024.
- The forecasts and forward-looking statements contained in this document are based on information currently available to us and do not guarantee or promise the accuracy or completeness of such information. In addition, changes in economic trends, industry competition, markets and systems may cause significant changes in the outlook.
- Figures in this document are rounded down to the nearest unit. Percentages are rounded off to the nearest unit.

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