

Securities ID code:6859

Results Briefing for the Third Quarter of Fiscal 2020 Ending March 2021

ESPEC CORP.
February 24, 2021

Financial Result for the Third Quarter of Fiscal Ending March 2021

Despite signs of recovery in some areas, both profit and sales decreased year on year as the trend of curtailed capital investment continued

	Year on Year	Forecast Ratio (As of November)
■ Orders-Received	× Decreased due to declines in all businesses	○ Increased due to Equipment Business (all products) and Service Business
■ Net sales	× Decreased due to declines in the Equipment Business (environmental test chambers and energy device equipment) and Service Business	○ Equipment Business and Service Business were in line with forecast, while Other Business saw a slight increase
■ Operating income	× Decreased due to the decline in sales	○ Increased as improvement in cost of sales ratio was better than anticipated
■ Ordinary income, Net income*	× Decreased due to the decline in operating income	○ Increased due to the increase in operating income

■ Upwardly revised the full-year financial forecast on February 10 based on the financial results for the third quarter of fiscal 2020 ending March 2021

Also revised the year-end dividend forecast by ¥8 per share to ¥38 (an interim dividend of ¥10 and an annual dividend of ¥48)

From fiscal 2020, ESPEC EUROPE GmbH (Germany) and ESPEC ENGINEERING (THAILAND) CO., LTD. have been included in the scope of consolidation.

*Profit attributable to owners of parent

Summary of Profits and Losses

(millions of yen)

	FY 2019 3Q Results	FY 2020 3Q Results	Year on Year
Orders–Received	33,705	27,448	–18.6%
Net sales	29,805	26,526	–11.0%
Cost of Net Sales (Cost of sales ratio)	19,034 (63.9%)	17,401 (65.6%)	–8.6% (1.7pt deterioration)
Gross profit	10,771	9,125	–15.3%
SG&A	7,959	7,794	–2.1%
Operating income	2,812	1,330	–52.7%
Ordinary income	2,986	1,491	–50.1%
Profit attributable to owners of parent	2,096	943	–55.0%

Performance by Segment

(millions of yen)

Segment		FY 2019 3Q Results	FY 2020 3Q Results	Year on Year
Equipment Business	Orders-Received	26,755	22,340	-16.5%
	Net Sales	24,408	20,745	-15.0%
	Operating Income	2,429	1,073	-55.8%
Service Business	Orders-Received	4,780	4,567	-4.5%
	Net Sales	4,610	4,114	-10.8%
	Operating Income	443	191	-56.9%
Other Business	Orders-Received	2,331	778	-66.6%
	Net Sales	945	1,848	95.6%
	Operating Income	-63	64	—
Elimination	Orders-Received	-162	-237	—
	Net Sales	-158	-182	—
	Operating Income	2	1	—
Total	Orders-Received	33,705	27,448	-18.6%
	Net Sales	29,805	26,526	-11.0%
	Operating Income	2,812	1,330	-52.7%

Equipment Business

(millions of yen)

	FY 2019 3Q Results	FY 2020 3Q Results	Year on Year
Orders-Received	26,755	22,340	-16.5%
Net Sales	24,408	20,745	-15.0%
Operating Income [Profit ratio (%)]	2,429 [10.0%]	1,073 [5.2%]	-55.8%

Environmental test chambers

- In Japan, versatile standardized products and customized products both declined year on year overall, including the automobile and electronics sectors, as the trend of curtailed investment by customers continued
- Overseas, net sales in Southeast Asia and South Korea increased year on year, while net sales in China, Europe and the U.S. decreased

Energy Device Equipment

- Orders-received and net sales both substantial decreased year on year due to sluggish sales of evaluation systems for secondary batteries and fuel cells

Semiconductor Equipment

- Orders-received and net sales both increased year on year due mainly to memory-related investment.

Service Business

(millions of yen)

	FY 2019 3Q Results	FY 2020 3Q Results	Year on Year
Orders-Received	4,780	4,567	-4.5%
Net Sales	4,610	4,114	-10.8%
Operating Income [Profit ratio (%)]	443 [9.6%]	191 [4.6%]	-56.9%

After-sales Service and Engineering

- Orders-received remained level year on year, but net sales decreased mainly due to activity constraints in the first quarter

Commissioned Tests and Facility Rentals

- Orders-received and net sales both decreased year on year mainly due to sluggish market conditions of commissioned tests

Other Business

(millions of yen)

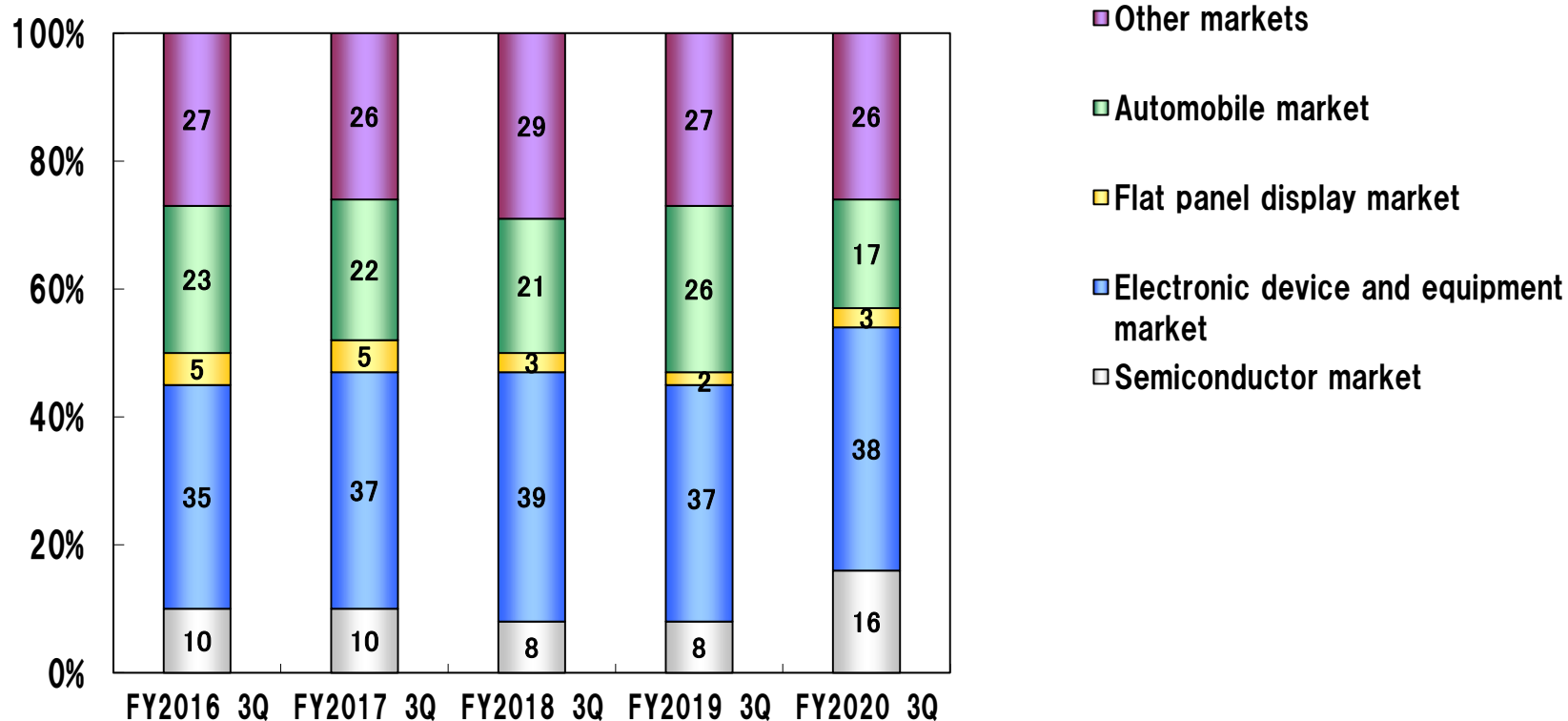
	FY 2019 3Q Results	FY 2020 3Q Results	Year on Year
Orders-Received	2,331	778	-66.6%
Net Sales	945	1,848	95.6%
Operating Income [Profit ratio (%)]	-63 [-6.7%]	64 [3.5%]	—

Environmental Preservation, Plant Production Systems

- Orders-received decreased compared to the previous year which included large-scale orders for plant factory business, while net sales increased due to recording the aforementioned large-scale projects

Breakdown of Sales by Market

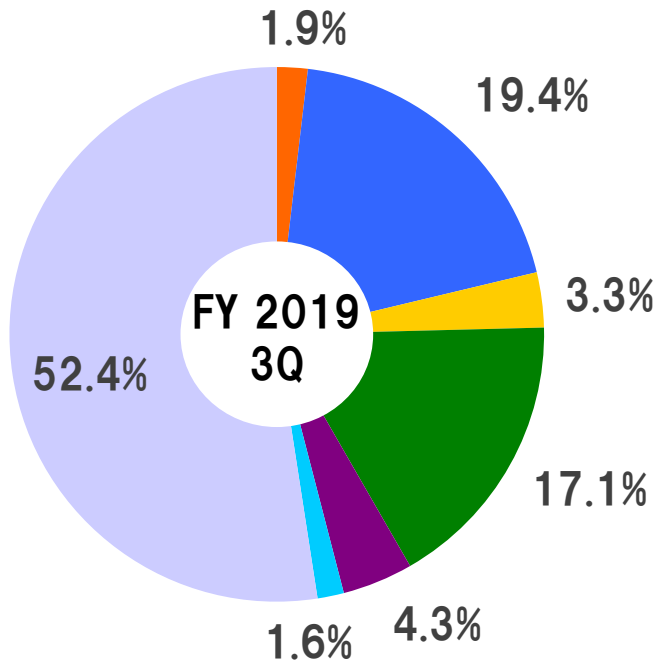
Non-consolidated (Equipment business)



Sales by Region

FY 2019 3Q

Overseas sales ratio: 47.6%

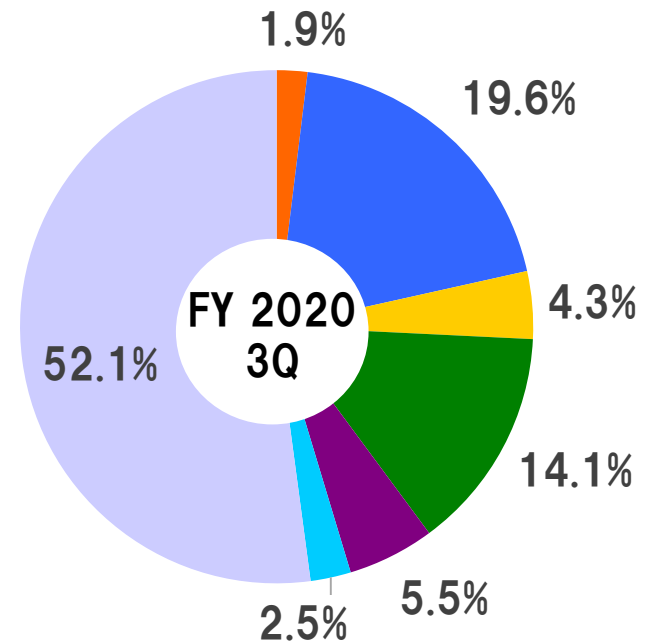


Total: 29,805 million yen

(Overseas sales: 14,176 million yen)

FY 2020 3Q

Overseas sales ratio: 47.9%



Total: 26,526 million yen

(Overseas sales: 12,703 million yen)

Full-Year Forecasts for Fiscal 2020

(millions of yen)

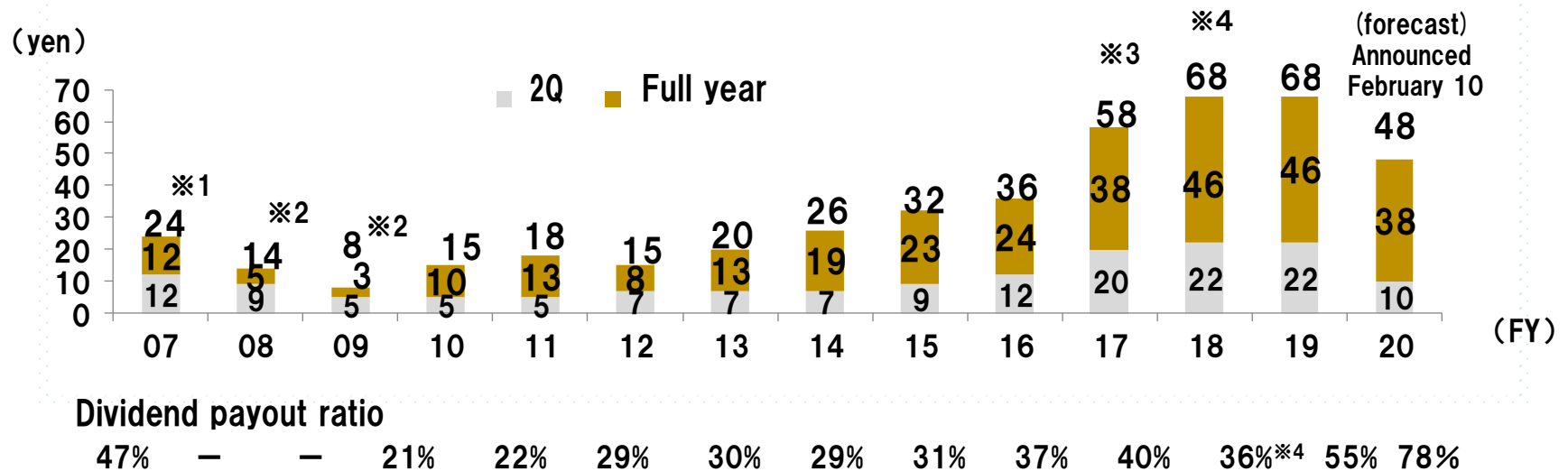
	FY 2019	FY2020	FY 2020			
	Full year Results	Full year (Forecast as of November)	3Q Results	Revised forecast		
				4Q	Full year	Year on Year
Orders-received	43,571	35,000	27,448	8,552	36,000	-17.4%
Net Sales	42,443	37,000	26,526	10,975	37,500	-11.6%
Gross profit [Profit ratio (%)]	14,719 [34.7%]	12,100 [32.7%]	9,125 [34.4%]	3,520 [32.1%]	12,644 [33.7%]	-14.1% [-1.0pt]
SG&A [SG&A ratio (%)]	10,976 [25.9%]	10,400 [28.1%]	7,794 [29.4%]	2,850 [26.0%]	10,644 [28.4%]	-3.0% [+2.5pt]
Operating income [Profit ratio (%)]	3,742 [8.8%]	1,700 [4.6%]	1,330 [5.0%]	671 [6.1%]	2,000 [5.3%]	-46.6%
Ordinary income [Profit ratio (%)]	3,933 [9.3%]	1,800 [4.9%]	1,491 [5.6%]	300 [2.7%]	2,100 [5.6%]	-46.6%
Profit attributable to owners of parent [Profit ratio (%)]	2,818 [6.6%]	1,200 [3.2%]	943 [3.6%]	200 [1.8%]	1,400 [3.7%]	-50.3%

FY 2020 Dividend Forecast

Basic policy on profit distribution

We recognize that passing on profits to our shareholders is a key priority and that raising corporate value on a lasting basis is fundamental to raising shareholder value. Dividends are decided taking into account sustainability and the dividend payout ratio.

Dividend per share and dividend payout ratio



Dividend payout ratio

47% — — 21% 22% 29% 30% 29% 31% 37% 40% 36%*4 55% 78%

*1.The dividend per share for FY2007 included a commemorative dividend of ¥2 per share to mark the Company's 60th founding anniversary.

*2.Dividends were implemented in FY2008 and FY2009, despite posting a net loss.

*3.The dividend per share for FY2017 includes a commemorative dividend of ¥2 per share to mark the Company's 70th founding anniversary (an interim dividend of ¥1 per share and a year-end dividend of ¥1 per share).

*4.FY2018 was an irregular 15-month fiscal period for overseas consolidated subsidiaries. The dividend payout ratio for a 12-month period is 39% (reference)

TOPICS (1)

(February, 2021)

Opened the world's first all-weather experimental laboratory to replicate various global weather environments

- Replicates dynamic environments* in addition to all weather (temperature and humidity, snow, rain, sunlight, fog, wind)
- Aiming to help solve issues related to cutting-edge technology and advance our environmental creation technology

* Weather environments that change over time (changes such as sleet⇒snow, rain⇒fog)



(February, 2021)

Developed Stable Temperature Transport Coolers in line with GDP to address stable transport of biopharmaceuticals, vaccines, etc.

- Achieved stable transport of pharmaceuticals through precise temperature control (-20°C – $+40^{\circ}\text{C}$)
- Vibration resistant, energy efficient, portable, and optimal for vehicle transportation from warehouses to medical facilities

* GDP = Good Distribution Practices for pharmaceutical products



TOPICS (2)

(January, 2021)

Converted 100% of power consumption at main Kansai facilities to renewable energy

- Converted to electricity derived from renewable energy at five main Kansai facilities (equivalent to 40% of consolidated electrical consumption)
- Expected to reduce annual CO₂ emissions (SCOPE 1+2) by 23%
- Using electricity with the added value of renewable energy (non-fossil fuel energy certificates with tracking information*)

*This indicates an achievement of substantial renewable energy supply by notifying of the source of non-fossil-based value, by combining a renewable energy-designated non-fossil fuel certificate that adds (tracks), to the supplied electricity, attribute information, such as the power plant location and the power supply type from which it is derived.

(January, 2021)

ESPEC Smile Club: a donation system featuring employee participation

- Established a matching gift system in which the company matches donations made by employees as part of activities to promote SDGs
- Donated to an organization that conducts CSR activities related to children and medical care (first activity scheduled for April 2022)



Logo

External Recognition

February, 2021

- Our Sustainability Report received the Excellence Award in the Environmental Communication Awards (Organized by the Ministry of the Environment and the general incorporated foundation Global Environment Forum)



December, 2020

- Voluntarily responded to CDP Climate Change Questionnaire this year for the first time and received a "B" score
- Selected as an excellent website in the All Japanese Listed Companies' Website Ranking 2020 by Nikko Investor Relations Co., Ltd.
- Awarded a Bronze Prize in the Gomez IR Website Ranking 2020 by Morningstar Japan K.K. (ranked 28th according to industry)



November, 2020

- Rated 3 stars in Nikkei's 4th Smart Work Management Survey
- Rated 3.5 stars in the Nikkei SDGs Management Survey 2020
- Ranked 163rd in the Nikkan Kogyo Shimbun's COVID-19 Response Ranking (sponsored by the Ministry of Economy, Trade and Industry)



June, 2020

- Ministry of Economy, Trade and Industry (METI) Global Niche Top Companies Selection 100 for Fiscal 2020
ESPEC was selected as a winner for the second time



These materials contain forward-looking statements, including the Company's present plans and forecasts of performance, that reflect the Company's plans and forecasts based on the information presently available. These forward-looking statements are not guarantees of future performance, and plans, forecasts, and performance are subject to change depending on future conditions and various other factors.

INQUIRIES:

ESPEC CORP.

3-5-6, Tenjinbashi, Kita-ku, Osaka 530-8550, Japan

E-mail: ir-div@espec.jp

Jyunko Nishitani (General Manager) ,

Yasutoshi Nakagawa and Natsuko Okawa

Corporate Communication Department

Reference

Company Profile

Industry-leading manufacturer of environmental test chambers

Name	ESPEC CORP.
Head Office	3-5-6, Tenjinbashi, Kita-ku, Osaka
Represented By	Masaaki Ishida
Established	July 25, 1947
Incorporated	January 13, 1954
Paid-up Capital	¥6,895 Million
Shares Issued	23,781,394 Shares
Employees	1,512 (consolidated)
Main Business	Manufacture and Sales of Environmental Test Chambers, Energy Device Equipment, Semiconductor Equipment and Plant Factory. After-sales Service, Commissioned Tests and others.



Head office

Share of Environmental
Test Chambers:

Over 30% worldwide, Over 60% domestic (As of March 31, 2020)

Global Network

Consolidated Subsidiaries 12 companies

(Global 9 companies,
Domestic 3 companies)

Global Network
46 countries
42 companies

Business Facilities in Japan : 25
Domestic Agencies in Japan : 46

EUROPE

- ESPEC EUROPE GmbH
- ESPEC IKLIM KABINLERI SATIS VE MUHENDISLIK LIMITED SIRKETI

- ESPEC CORP.
- ESPEC TEST SYSTEM CORP.
 - ESPEC KYUSHU CORP.
 - ESPEC MIC CORP.
 - MIC FARM OHGUCHI CORP.

JAPAN

ASIA

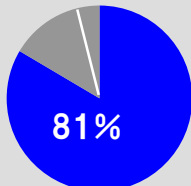
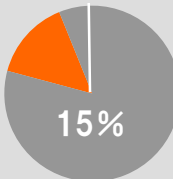
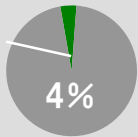
- SHANGHAI ESPEC ENVIRONMENTAL EQUIPMENT CORP.
- ESPEC ENVIRONMENTAL EQUIPMENT (SHANGHAI) CO., LTD.
- ESPEC TEST EQUIPMENT (GUANGDONG) CO., LTD.
- ESPEC TEST TECHNOLOGY (SHANGHAI) CO., LTD.
- ESPEC (CHINA) LIMITED
- ESPEC KOREA CORP.
- ESPEC ENGINEERING (THAILAND) CO., LTD
- ESPEC ENGINEERING VIETNAM CO., LTD.

U.S.A.

- ESPEC NORTH AMERICA, INC

●: Consolidated Subsidiaries
–: Non-consolidated Subsidiaries

Summary of ESPEC Business (Per Market / Use)

		Main Products	Market	Use	Sales composition (FY2019)
Equipment Business	Environmental Test Chambers	•Temperature & humidity chamber •Thermal shock chamber •Bench-top type temperature & humidity chamber •HAST chamber •Walk-in type temperature & humidity chamber •Combined temperature & humidity chamber •HALT & HASS test chamber •FPD equipment	•Electronic component and equipment market •Automobile market •Semiconductor market •Medicine, Cosmetics, Foods market •LCD and Organic Electro-Luminescence market	•For R & D •For credibility and evaluation •For production and inspection	 81 %
	Energy Device Equipment	•Charge-discharge Cycle Evaluation Equipment •LIB safety evaluation system •Fuel cells evaluation system	•Next generation automobile market •Secondary batteries market •Fuel cells market	•For R & D •For credibility and evaluation •Safety evaluation •For production	
	Semiconductor Equipment	•Burn-in system •Semiconductor evaluation system •Instrumentation system	•Semiconductor market •Automobile market	•For production and inspection •For development and evaluation	
Service Business	After-sales Service and Engineering	•After-sales service •Construction around equipment	•Electronic component and equipment market •Automobile market •Semiconductor market	—	 15 %
	Commissioned Tests and Facility Rentals	•Commissioned test •Resale •Equipment rental •Calibration		•For R & D •For credibility and evaluation	
Other Business	Environmental Preservation	Reforestation (Tree planting) , Waterfront biotope restoration, Urban greening			 4 %
	Plant Production Systems	Plant factory, Equipment for growing plants			

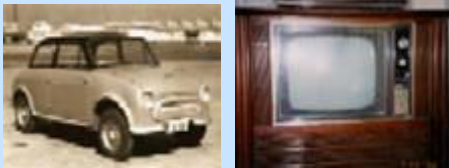
History of Environmental Test

What is Environmental Test

Test to analyze and evaluate effects of environmental factors such as temperature, humidity, pressure, and light on various industrial products like electronic components in order to ensure product quality.

<1950s>

The environmental test was JIS-standardized in Japan for consumer products.



<1970s-1990s>

“Reliability” and “quality control” became important issues in product development. Demand increased dramatically due to a rapid shift toward computerization and the use of electronic components.



<Today>

Demand is expanding in 5G and IoT field, also the development field of automobiles' electrification and automated driving functions.



1961 Japan's First Environmental Test Chamber



【 Low temperature & humidity chamber 】
“Lucifer”



Over 60%
domestic

Over 30%
worldwide

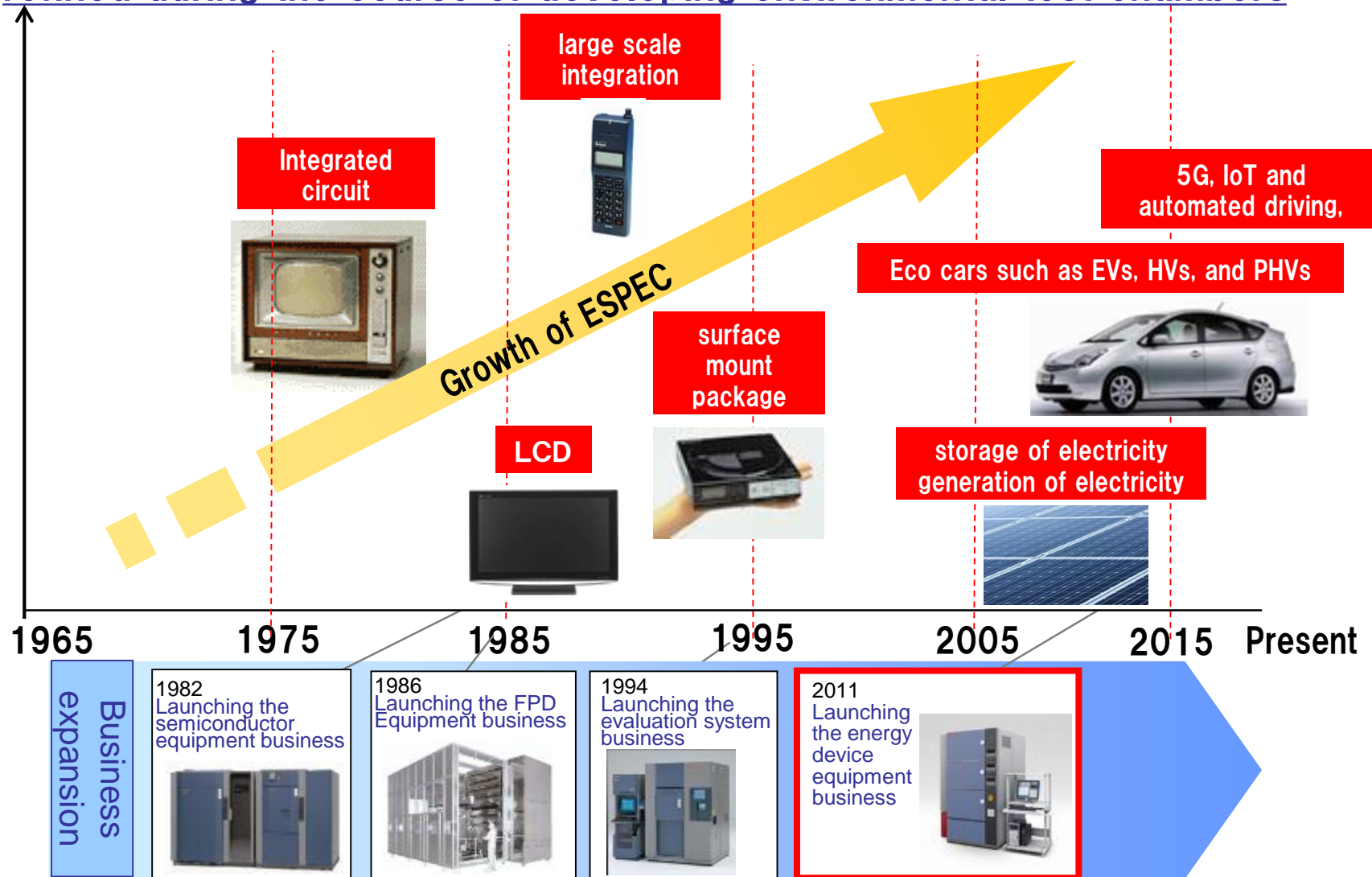
To Worldwide Market Share No.1



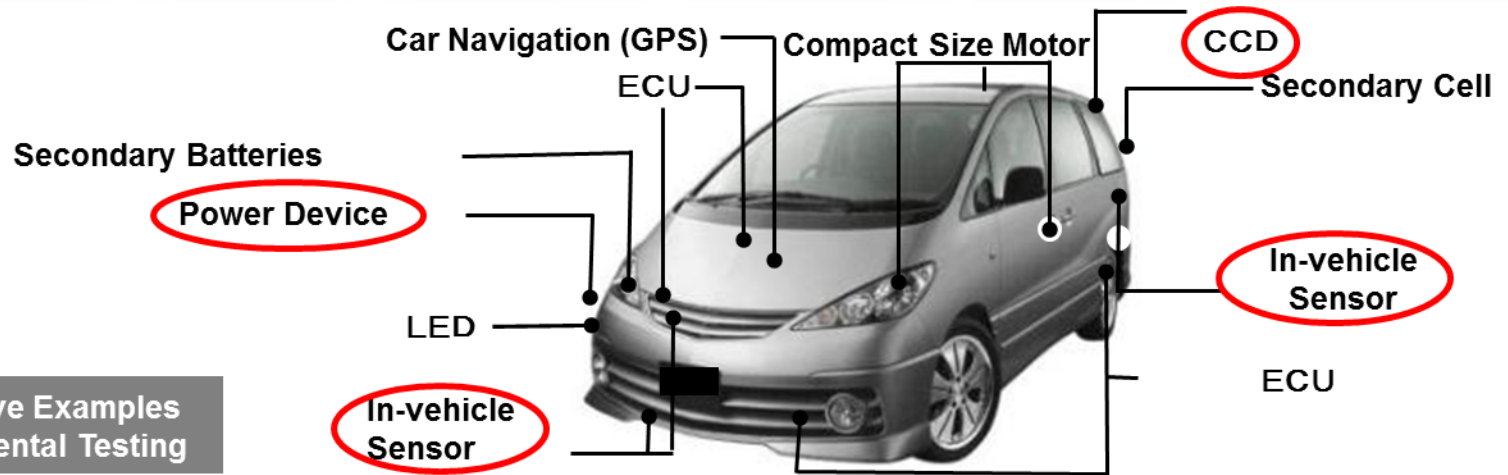
【 Temperature & Humidity Chamber 】
“Platinous J series”

Transition in Business




Expanding business based on the “environmental creation technology” refined during the course of developing environmental test chambers




[Equipment Business] Usage Case with Environmental Test Chambers



Representative Examples
for Environmental Testing

Device	Process/Test Condition		Our Products
【Power Device】 	Inspection	■ Thermal shock test: $-40^{\circ}\text{C} \Leftrightarrow +125^{\circ}\text{C}$	Thermal shock chamber
		■ High temperature exposure: $+175^{\circ}\text{C}$, $+85^{\circ}\text{C}$	(Compact size) Oven
		■ Burn-in test	Burn-in chamber
【In-vehicle Sensor】 	Inspection	■ Temperature cycle test of printed circuit board: $-40^{\circ}\text{C} \Leftrightarrow +110^{\circ}\text{C}$	Temperature & humidity chamber (Platinous) / Oven
		■ Temperature characteristic test after soldering: Linear change between -30°C and $+85^{\circ}\text{C}$	Burn-in chamber, Rapid-rate thermal cycle chamber
	Evaluation	■ Thermal shock test : $-30^{\circ}\text{C} \Leftrightarrow \text{RT} \Leftrightarrow +80^{\circ}\text{C}$, $-55^{\circ}\text{C} \Leftrightarrow +155^{\circ}\text{C}$	Thermal shock chamber
【CCD/CMOS】 	Production	■ Diffusion Test: $+150^{\circ}\text{C}$	Compact size Oven
		■ Drying after cleaning: $+85^{\circ}\text{C}$	Clean Oven
	Evaluation	■ Screening: $+85^{\circ}\text{C}$	Temperature chamber (Platinous) / Burn-in chamber
	Inspection	■ Temperature and humidity test: $+85^{\circ}\text{C} / +85\%\text{rh}$, $+60^{\circ}\text{C} / 90\%\text{rh}$	Temperature & humidity chamber (Platinous)
		■ Acceleration test: $+120^{\circ}\text{C} / 100\%\text{rh}$	HAST chamber
		■ Thermal shock test : $-40^{\circ}\text{C} \Leftrightarrow +125^{\circ}\text{C}$, $-20^{\circ}\text{C} \Leftrightarrow +85^{\circ}\text{C}$	Thermal shock chamber

[Equipment Business] Main New Products

Release Date	Name of product	Features
Aug. 2020	Expanded Environmental Stress Chamber AR Series Lineup	<ul style="list-style-type: none"> • Launched four new models as rapid-rate temperature cycle type products, bringing the total lineup to 32 models across the series
Mar. 2020	Transportation Evaluation System	<ul style="list-style-type: none"> • Recreates transport environments for pharmaceuticals and medical devices Applications in biopharmaceutical R&D and medical equipment quality control
Feb. 2020	Walk-In Type Temperature (&Humidity) Chamber for Drive-In Series	<ul style="list-style-type: none"> • Recreates various weather environments in a large space accommodating two vehicles
Feb. 2020	Walk-In Type Temperature (&Humidity) Chamber for High-Power Series	<ul style="list-style-type: none"> • Complies with international IEC standards and German automobile industrial standard
Dec. 2019	Thermal Air Test System	<ul style="list-style-type: none"> • Materials testing is possible under actual use conditions such as in vehicles through combinations of various types of material testing equipment
Dec. 2018	Aging Cabinet	<ul style="list-style-type: none"> • There is no temperature rise due to defrosting, and long-term continuous operation of high humidity environment is possible while maintaining below 5°C • Equipped with sterilization mode
Nov. 2018	Standard type secondary battery charge-discharge tester for automobiles	<ul style="list-style-type: none"> • Supports charge-discharge testing for large capacity secondary batteries in automobiles
Oct. 2018	Environmental Stress Chamber AR series Rapid-Rate Temperature Cycle Type (5K/min) 	<ul style="list-style-type: none"> • Conforms to IEC standards and a German automobile industry standard • Uses European F-gas Regulation-compliant low-GWP refrigerant R-449A
Mar. 2018	Environmental Stress Chamber AR Series Rapid-Rate Temperature Cycle Type	<ul style="list-style-type: none"> • Second F-gas Regulation-compliant low-GWP refrigerant (R449) environmental testing chamber

[Equipment Business] New Product Introduction (1)

(Released in Feb. 2020)

■ Walk-In Type Temperature (&Humidity) Chamber for High-Power Series

<Features>

- Compliant with IEC International Standards and German Automotive industry standard LV124
(Can perform rapid temperature change testing of samples at 3K/minute)
- Low GWP coolant (R-449A) as standard equipment



Walk-In Type Temperature (&Humidity)
Chamber for High-Power Series

(Released in Dec. 2019)

■ Walk-In Type Temperature (&Humidity) Chamber for Drive-In Series

<Features>

- Closely recreates various weather environments in a large space of approximately 500 m³ accommodating two vehicles to perform actual vehicle testing
- Multiple environmental factors can be recreated simultaneously, including humidity, sunlight, rain, snow, fog, and wind

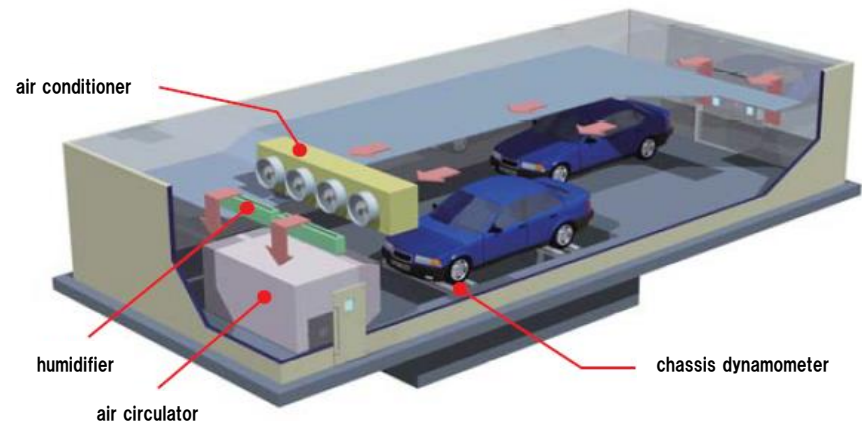


Image of vehicle test

Walk-In Type Temperature (&Humidity)
Chamber for Drive-In Series

[Equipment Business] New Product Introduction (2)

For the medical field

(Released in Feb. 2020)

■ Transportation Evaluation System

<Features>

- Enables simultaneous recreation of temperature and vibration environment during transport to test medicine, etc. in actual transportation environment
- Two types of equipment for biopharmaceutical and reagent R&D application and medical equipment quality control application



2 models of Transportation Evaluation System

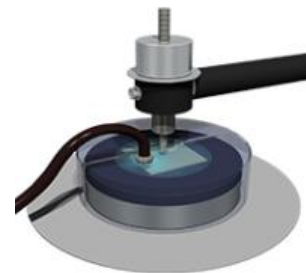
For material field

(Released in Dec. 2019)

■ Thermal Air Test System

<Features>

- Can be combined with various materials testing instruments to perform materials testing in actual usage environment with given temperature
- Uses ESPEC's proprietary new method for cooling and heating test pieces efficiently



Example of set up with friction and wear testing machines and hardness meter (Left)
Thermal Air Test System (Right)

[Equipment Business] Examples of Products Delivered (1)

(Delivered in July 2018)

■ Delivery examples of temperature (& humidity) chambers, test chambers for use for building materials

Uses

Reproduce the environment inside apartments (temperature and humidity) and outdoors (weather such as rain, snow, and solar radiation), conduct performance evaluations and durability tests of building materials for sash, balcony, etc.



Temperature (& humidity) chambers, test chambers for use for building materials



Temperature (& humidity) chambers are movable so that building materials for testing can be easily changed



Furnished with irradiation equipment and watering (rain) equipment, to reproduce an outdoor weather environment

[Equipment Business] Examples of Products Delivered (2)

(Delivered in March 2016)

■ Smart System Research Facility, Fukushima Renewable Energy Institute, AIST (Koriyama city, Fukushima)

Product delivered:

Large walk-in type temperature & humidity chamber

Uses:

Performance and safety evaluation for large power conditioners for solar power generation
Supports heat generation loads of 100 kw and large weights (21 tons)



Large walk-in type temperature & humidity chamber

■ National Laboratory for advanced energy storage technologies (NLAB), National Institute of Technology and Evaluation (Nanko, Osaka City)

Product delivered:

1. Walk-in type temperature & humidity chamber for charge-discharge testing
2. External short-circuit testing equipment (energy devices equipment)

Uses:

1. Evaluate the performance of storage batteries by repeatedly charging and discharging them
2. Evaluate safety by confirming that storage batteries will not catch fire or rupture if they short circuit



Walk-in type temperature & humidity chamber for charge-discharge testing

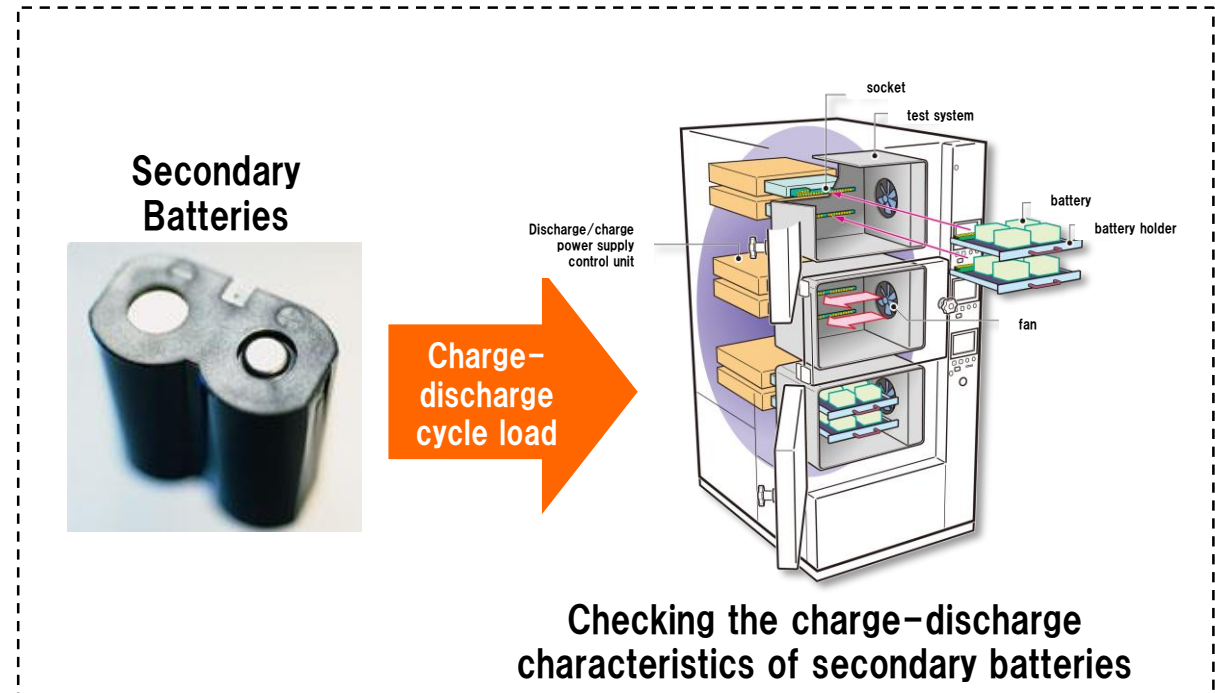
[Equipment Business] Usage Case with Energy Device Equipment

Charge-discharge Cycle Evaluation Equipment

Equipment for ensuring the reliability and safety of lithium-ion secondary batteries for next-generation vehicles (e.g., hybrid and electric vehicles)



Charge-discharge Cycle Evaluation Equipment



Evaluating the performance and life of secondary batteries

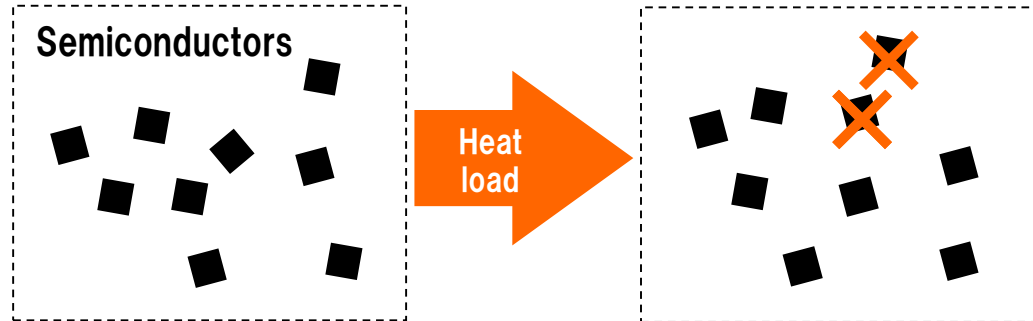
[Equipment Business] Usage Case with Semiconductor Equipment

Screening

Eliminate defective products to maintain initial-period quality at the final inspection stage of semiconductor device manufacturing



Burn-in chamber



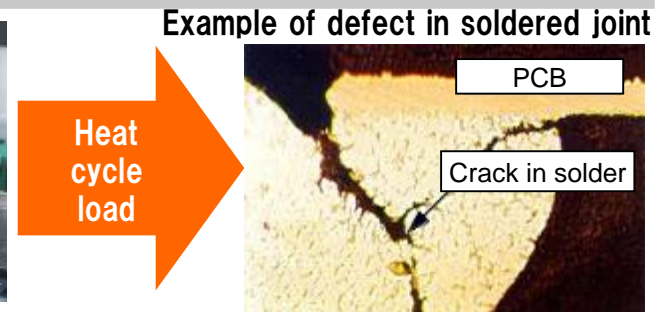
Elimination of latent early failures

Reliability Evaluation

Used to evaluate basic failure patterns to ensure reliability in the development of new technologies



Conductor resistance evaluation system



Electrical evaluation of reliability of joints in electronic parts

[Service Business]

After-sales Service and Engineering

Preventive maintenance of products, maintenance service, and the upgrading/improvement and installation/relocation of products

- Speedy response via one of the most extensive networks in Japan
- Launching new services by utilizing the network function mounted in the equipment

Commissioned Tests and Facility Rentals

Commissioning of testing, analysis, and evaluation; consulting; equipment rental; sales of used products; calibration of test equipment, etc.

- The company has four commissioned test centers in Japan, one in Thailand, two in China.
(Japan: Utsunomiya, Toyota, Kariya and Kobe, Thailand, China: Shanghai, Suzhou)
- The centers are also recognized as official calibration facilities under the Japan Calibration Service System (JCSS).
- [First in world] Opened Battery Safety Certification Center. (in September 2015)
 - Providing a one-stop service for testing and certification application services compliant with United Nations regulations on the safety of automotive rechargeable batteries.
 - Entered into business alliance with TÜV SÜD Japan Ltd., a third-party certification agency (in October 2014)
- [First in Japan] Acquire ISO/IEC 17025 test facility certification simultaneously in the three fields of automobiles, trains and airplanes
- The Toyota Test Center provides one-stop services for testing LV 124, the German Automotive Manufacturer Testing Standards



Battery Safety Certification Center

* ISO/IEC 17025: An international standard in which an authoritative third-party organization certifies whether a test facility or calibration organization is capable of producing accurate measurements or calibration results

[Service Business]

May 2020 start of “Home-based online service”
Support continuity of customers’ development operations

When using ESPEC products

Operate equipment and monitor samples from home

- Centralized management
(monitoring and data analysis)
- Receive operating status by email
- Monitor samples using in-chamber monitoring camera (launched in March 2020)

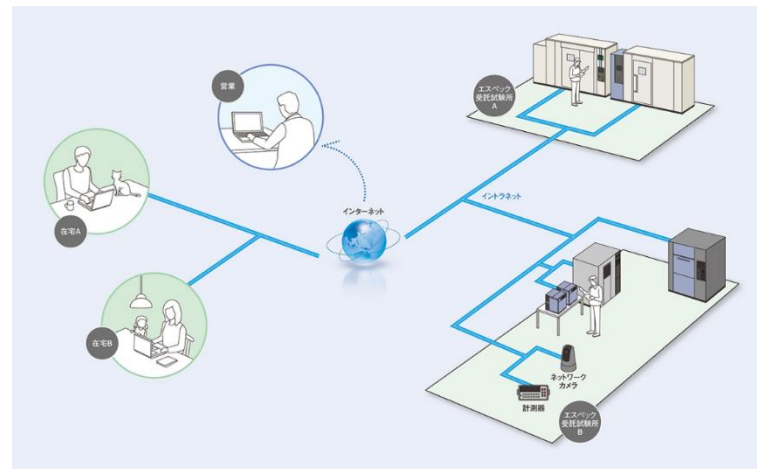


Image of in-chamber monitoring camera

When using commissioned testing center

All testing operations performed on behalf of customer, from start to finish, including transportation

- Remote consultation
- No need to attend in person
- Remote instruction



Realization of 100% green electricity for commissioned testing services at Kariya Test Center

In January 2020, we became the first commissioned testing facility to convert to green electricity using a green electricity certificate.*

We expect to reduce annual CO₂ emissions by approximately 768 t.

*A certificate issuer receives certification from a third-party certifying organization (JAPAN QUALITY ASSURANCE ORGANIZATION) for environmental added value of electricity generated from renewable energy. The certificate can be traded as a system.



Kariya Test Center



[Service Business]

World's first Battery Safety Certification Center compliant with United Nations regulations

Providing a one-stop service to support the implementation of 9 safety tests and applications for certification by certification agencies, as stipulated by UN ECE R100-2. Part II, a United Nations regulation.

(The facility was opened within the Utsunomiya Technocomplex in September 2015.)



**Crush Testing Equipment
(No. 1 Safety Test Room)**



**No. 2 Safety
Test Room**

Renovated the Toyota Test Center First testing facility in Japan to address the German Automotive Manufacturer Testing Standards

Supporting Japanese automotive equipment manufacturers seeking to develop global operations by addressing all test items set forth by the LV124 German Automotive Manufacturer Testing Standards

(Renovated the Toyota Test Center in September 2019)



Toyota Test Center

[Other Business]

Environmental Preservation

■ Reforestation (Tree planting)

Recovery of local forest by selecting species and planting out seedlings using potential natural vegetation data.

■ Waterfront biotope restoration

Reconstruction of natural environment, development of vegetative revetments, and water quality improvement using aquatic plants.

■ Urban greening

Provision of roof and wall greening systems that use moss to effectively alleviate heat island effect.



Plant Production Systems

Provision of various cultivation environments employing advanced environmental control technologies to control light, temperature, humidity, carbon dioxide, etc.



Plant factory



Phyto-toron

[Other Business]

Produced a high value-added vegetables using deep-seawater

**At a plant factory near Haneda Airport,
production and sales of vegetables high in minerals
with the use of deep sea water.**



Interior of the plant factory and Factory-produced vegetables "mineraleaf"

[Other Business] Examples of Products Delivered

■ Arid Land Research Center, Tottori University

(Delivered in March 2016)

Products delivered:

Experimental System for Analyzing Responses of Dryland plants to Climate Changes (2 units)

(Simulates the climates of arid lands, including high temperature, low humidity, strong sunlight, and high winds)

Uses:

Plant cultivation experiments and experiments to develop efficient water-usage technologies in arid lands, research to solve issues facing arid lands



Experimental System for Analyzing Responses of Dryland plants to Climate Changes



Experiment in progress

Strengthen Technology Development Capability

(New technology development building introduction)

Objective : Strengthen technology development capabilities
and promote preservation of biodiversity
by encouraging open innovation

Concepts : “Open innovation,”
“Open communication,”
“Coexistence with the natural environment”

Location : Kanokodai, Kita-ku, Kobe, Hyogo
(in Kobe R&D Center)

Start of operation : May 2020
(Construction started in June 2019)

Building area : 1,580m²

Gross floor area : 4,557m² (Three story building)



Rooftop green space using only native species



New technological development building

ESPEC Identity Corporate Philosophy

Our important values that have been passed on
since our inception

“THE ESPEC MIND” (Excerpt)

The Origin

To engage in a higher level of value exchange
as a public institution

Mission

Provide more certain Seikankyo (living environment) via
environmental creation technology

Style

Progressive, Reliable, Open, Fair

Declaration

What ESPEC promises society

“compliance,” “culture,” “human rights,” “the environment,”
“education/enlightenment.”

ESPEC Business and SDGs

Equipment Business

Service Business

Contribute to the development of cutting-edge technologies through the supply of products and services that harness “Environmental Creation Technology”

- Supply products and services that contribute to the development of cutting-edge technology, with a view to solving social and environmental issues



Environmental Preservation

Contribute to biodiversity preservation

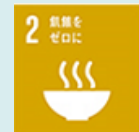
- Promote the nature restoration/revival business, which contributes to biodiversity preservation and global warming mitigation



Plant Production Systems

Contribute to the stable supply of food to address global warming and extreme weather

- Supply plant factories that can systematically grow safe vegetables
- Supply plant production systems to promote research into drought-tolerant plants



ESPEC Business and SDGs

Environmental (E)

- Contribute to global warming mitigation
- Reduce environmental impact
- Eco-site and eco-operation
- Prevent pollution
- Preserve biodiversity



Social (S)

- Improve customer satisfaction and ensure product safety
- Supply chain management
- Respect human rights and promote the success of diverse human resources in the workplace
- Provide appropriate disclosure and communication of information
- Give back to society



Governance (G)

- Enhance governance
- Ensure compliance
- Promote risk management



Initiatives tackling environmental problems

● Environmental management in line with the Mid-term Plan on the Environment

Aim to contribute to the realization of a sustainable society through business activities

Currently we are implementing the 7th Mid-term Plan on the Environment

(planned implementation period: FY2018–FY2021)

● Forest preservation activity – Kehara Forest Creation Program

In March 2018, designated as an affiliated business of the Japan Committee for United Nations Decade on Biodiversity

Since 2007, the Company's employee volunteers have increased to over 1,000 participants

● ESPEC Foundation for Global Environment Research and Technology (Charitable Trust)

Provides funding support every year for research, technology development on global environmental conservation.

Established in 1997 on the 50th anniversary of ESPEC

● ESPEC Midori-no-gakko schools

Human resources certification, etc. based on Act on the Promotion of Environmental Conservation Activities through Environmental Education

Seminars and events are held throughout Japan to train leaders who will think about the global environment



Initiatives tackling environmental problems

(March 2018)

**Designated as affiliated businesses of the Kebara Forest Creation Program:
Creating a Mountain Full of Treasures—The Kyoto Model Forest Project, and The
Japan Committee for the United Nations Decade on Biodiversity**

- The Kebara Forest Creation Program is a project in which ESPEC and ESPEC MIC CORP. are working with the Fukuchiyama City Oecho Kebara Residents Association regarding forest conservation activities
- ESPEC formulated Creating a Mountain Full of Treasures Project which freshly reveals the attractive treasures in the forest: The variety of living creatures which live in the Kebara Forest. ESPEC conducts conservation activities such as cutting down and thinning, produces maps showing where the living creatures are, and maintains walking courses



Participants in the Kebara Forest Creation Program



This project is designated as a project recommended by the Japan Committee for the United Nations Decade on Biodiversity (UNDB-J)

To a company where employees can be more active

Initiatives to promote women's success



From the Ministry of Health, Labor and Welfare:
The Company received the "Kurumin" certification, which is granted to companies that support child-rearing. And the highest ranking of the certification mark "Eruboshi" based on the Act on Promotion of Women's Participation and Advancement in the Workplace.



The female leadership development program

Employee Education System Enhancement

- Implement a Global Trainee Program aimed at developing human resources who are capable of working in international settings
- Enhance the education program to support management executive education and self-development
- Promote work style reforms



On-site training in the Global Trainee Program (U.S.)

Quality is more than a word

ESPEC