

Securities ID code:6859

# ESPEC CORP.

# Results Briefing for The Second Quarter of Fiscal Ending March 2014

**November 13, 2013** 

www.espec.co.jp

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# Summary of ESPEC Business (Per Market / Use)

	Carrinary	or Lor Lo be	10111000 (1	or markot	, , 000/		
		Main Products	Market	Use	Sales composition (FY2013 2Q)		
Equi	Environmental Test Chambers	<ul> <li>Temperature &amp; humidity chamber</li> <li>Walk-in type temperature &amp; humidity chamber</li> <li>Thermal shock chamber</li> <li>Vibration combined environmental test system</li> <li>Bench-top type temperature &amp; humidity chamber</li> <li>HAST chamber</li> </ul>	<ul> <li>Electronic component and equipment market</li> <li>Automobile market</li> <li>Semiconductor market</li> <li>Medicine, Cosmetics, Foods and others</li> </ul>	•For R & D •For credibility and evaluation •For production and inspection			
Equipment Business	Energy Device Equipment	-Advanced battery tester -LIB electrode oven -LIB safety evaluation system -Solar battery evaluation system	<ul> <li>Secondary batteries</li> <li>Power semiconductors</li> <li>Solar battery</li> <li>Next generation automobile</li> </ul>	<ul><li>For R &amp; D</li><li>For credibility and evaluation</li><li>Safety evaluation</li><li>For production</li></ul>	81%		
siness	Semiconductor Equipment	Burn-in system     Semiconductor evaluation system     Instrumentation system	Semiconductor market     Automobile market	<ul><li>For production and inspection</li><li>For development and evaluation</li></ul>			
	FPD Equipment	<ul> <li>Single processing system vertical clean oven</li> <li>Low Oxygen Clean Oven (Temperature Property: Maximum 500°C)</li> </ul>	<ul><li>LCD market</li><li>Organic Electro- Luminescence market</li></ul>	For production (Annealing, baking, drying)			
Bus	After-sales Service and Engineering	After-sales service     Construction around equipment	•Electronic component and equipment market	_	16%		
Service Business	Commissioned Tests and Facility Rentals	-Commissioned test -Resale - Equipment rental -Calibration	-Automobile market -Semiconductor market	•For R & D •For credibility and evaluation			
Otner Business	Environmental Engineering Business	Reforestation (Tree planting), Waterfront biotope restoration, urban greening					
SS	New Business	Plant factory, developing and creating new businesses as a major source of profit					



# Financial Result for the Second Quarter of Fiscal Ending March 31, 2014

# Financial Highlights

Sales decreased slightly from the same period of the previous year.

#### **Profit and Losses**

- In the Japanese market, the amount of sales remained almost unchanged from the same period of the previous year. Although investments made by automobile-related manufacturers remained active, investments made by other manufactures did not show full recovery.
- In overseas markets, the amount of sales decreased slightly from the same period of the previous year. In Europe and America, the amount of sales remained solid primarily from automobile-related manufacturers. In China and Asia, the business performance of subsidiaries in China was sluggish.
- As a result, <u>both the amount of orders received and sales decreased slightly from the same</u> <u>period of the previous year. Profit also decreased.</u>

#### Balance Sheet and Cash Flow

- <u>Total assets increased by approx. 270 million yen</u> due to the increase in short-term investment securities and work in process, etc.
- <u>Cash and cash equivalents rose by approx. 700 million yen</u> due to the increase in operating cash flow.

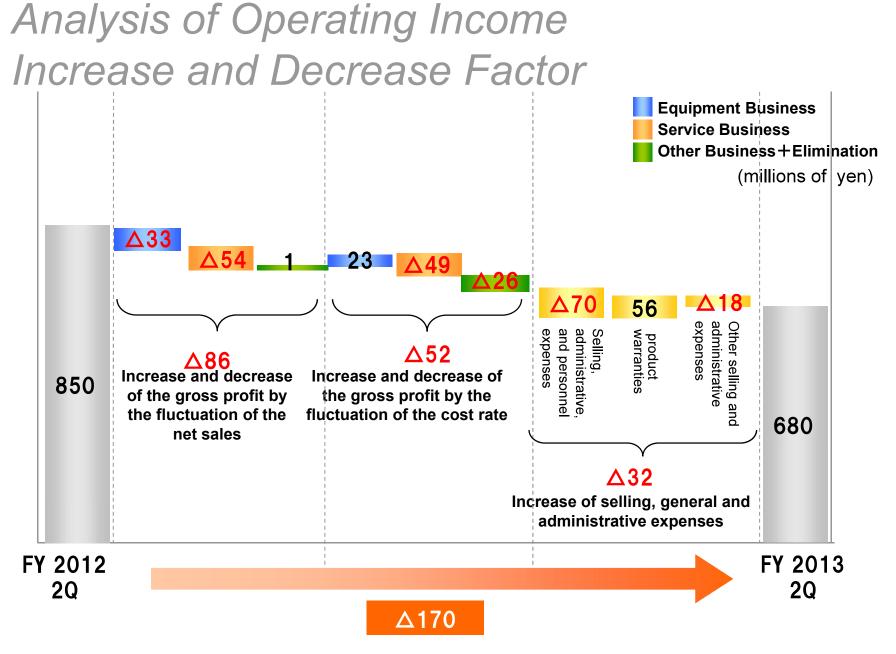
#### **Dividends**

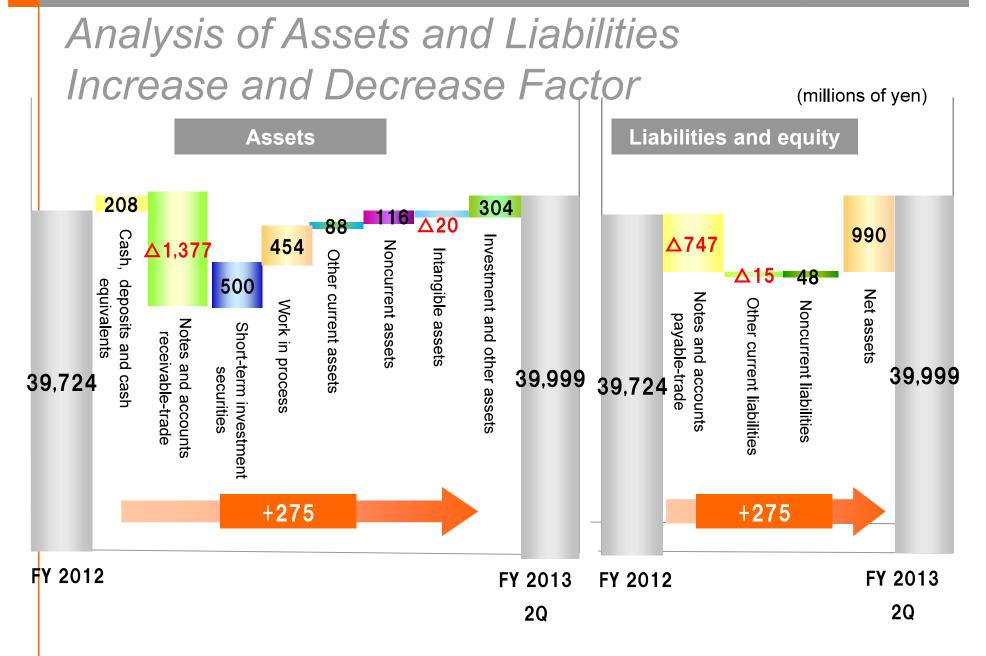
As initially planned, the company's interim dividend was 7 yen per share.

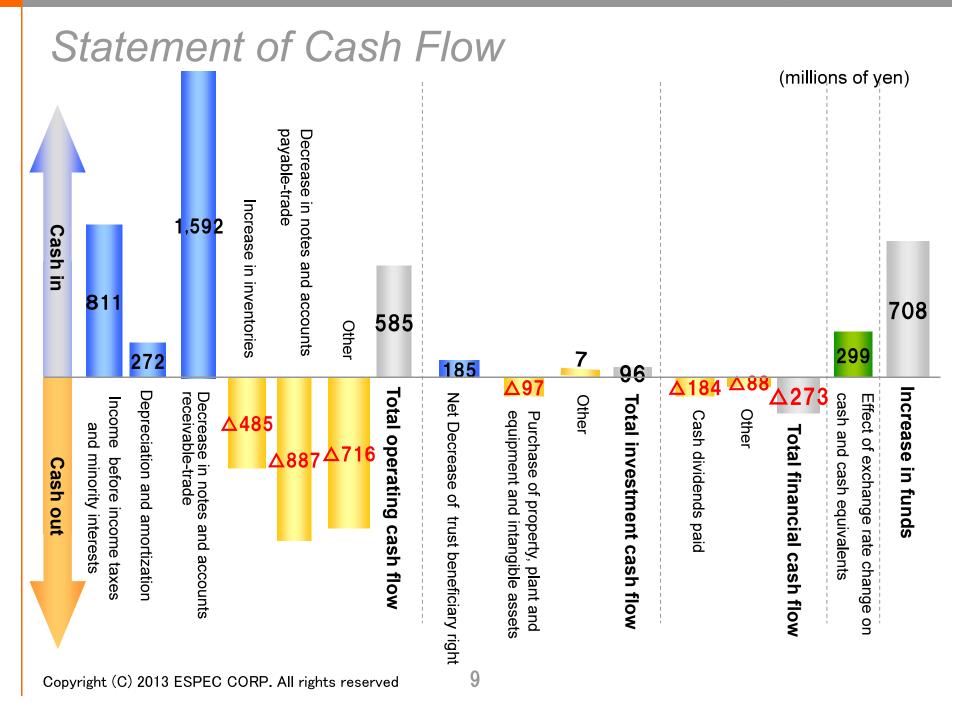
# Summary of Profits and Losses

(millions of yen)

	FY 2012 2Q	FY 2013 2Q	Rate of Change	Plan (Beginning of the period)
Orders-Received	16, 137	15, 551	Δ3. 6%	15, 000
Net sales	14, 290	14, 039	Δ1. 8%	14, 500
Cost of Net Sales	9, 364 (65. 5%)	9, 250 (65, 9%)	△1. 2% (+0. 4pt.)	9, 500 (65. 5%)
Gross profit	4, 925	4, 788	Δ2. 8%	5, 000
SG & A	4, 075	4, 108	0. 8%	4, 100
Operating income	850	680	Δ20. 0%	900
Ordinary income	876	811	Δ7. 4%	950
Quarterly net income	618	503	Δ18. 5%	500









Analysis per Segment for the Second Quarter of Fiscal Ending March 31, 2014

# Equipment Business

#### **Environmental Test Chambers**

- In the Japanese market, investments did not show full recovery. Sales of general-purpose standard products decreased. Business regarding walk-in type temperature (& humidity) chambers remained solid primarily in the automobile market as the amount of orders received and sales increased.
- In overseas markets, sales in Europe and America increased, while sales in China and Asia decreased.
- Overall, both the amount of orders received and sales decreased slightly from the same period of the previous year.

#### **Energy Device Equipment**

- The company promoted customer acquisition in Japan and overseas markets including China, primarily in the area of in-vehicle secondary batteries. Although the number of inquiries increased, the amount of orders received did not increase.
- Both the amount of orders received and sales decreased from the same period of the previous year.

#### **Semiconductor Equipment**

■ Due to strong investment by semiconductor manufacturers, both the amount of orders received and sales increased from the same period of the previous year.

#### **FPD Equipment**

Orders for clean ovens were received from overseas manufacturers. Both the amount of orders received and sales increased from the same period of the previous year.

# Equipment Business

(millions of yen)	FY 2012 2Q		2013 Q Rate of Change	Plan (Beginning of the period)
Orders- Received	12, 975	12, 682	Δ2. 3%	11, 850
Net Sales	11, 419	11, 320	Δ0. 9%	11, 550
Operating Income [Profit ratio (%)]	642 [5. 6%]	575 [5. 1%]	Δ10. 6%	700 [6. 1%]

## Service Business

(millions of yen)	FY 2012 2Q	F	Y 2013 2Q Rate of Change	Plan (Beginning of the period)
Orders- Received	2, 625	2, 493	Δ5. 0%	2, 500
Net Sales	2, 445	2, 306	Δ5. 7%	2, 500
Operating Income [Profit ratio (%)]	282 [11. 5%]	177 [7. 7%]	Δ37. 1%	250 [10. 0%]

#### **After-sales Service and Engineering**

Relocation and modification of equipment decreased due to cost reduction measures on the part of customers, etc. Both the amount of orders received and sales decreased from the same period of the previous year.

#### **Commissioned Tests and Facility Rentals**

- Consultations regarding testing (one of the main businesses) grew for the automobile market. Equipment rental were sluggish.
- Both the amount of orders received and sales decreased from the same period of the previous year.

## Other Business

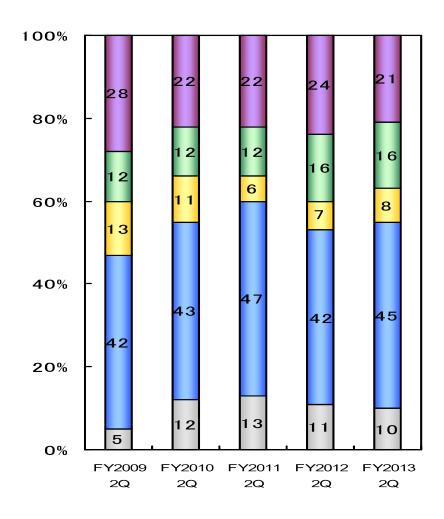
(millions of yen)	FY 2012 2Q	F	FY 2013  2Q  Rate of Change	Plan (Beginning of the period)
Orders- Received	611	464	Δ24. 0%	700
Net Sales	491	496	1. 1%	500
Operating Income [Profit ratio (%)]	△ <b>75</b> [−%]	△ <b>72</b> [−%]	_	△ <b>50</b> [−%]

#### **Environmental Engineering and Plant Factory**

- In the environmental engineering business segment, the amount of orders received in reforestation (tree planting) decreased but sales increased from the same period of the previous year.
- In the plant factory business segment, sales remained almost unchanged from the same period of the previous year.
- The amount of orders received decreased but sales increased slightly from the same period of the previous year.

# Breakdown of Sales by Market

#### **Non-consolidated (Equipment business)**



- Other markets
- Automobile market
- □ Flat panel display market
- Electronic device and equipment market
- Semiconductor market

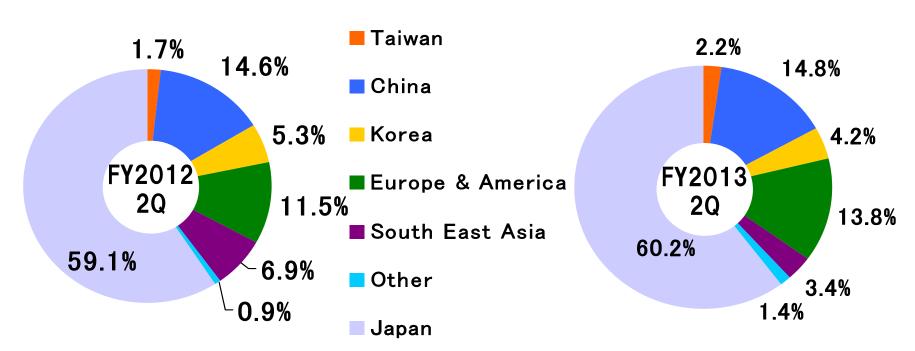
# Sales by Region

#### FY 2012 2Q

Overseas sales ratio:40. 9%

#### FY 2013 2Q

Overseas sales ratio:39.8%



Total: 14, 290 million yen

(Overseas sales: 5, 841 million yen)

Total: 14, 039 million yen

(Overseas sales: 5, 580 million yen)



Business Plan for the Fiscal Ending March 31, 2014

# Full-term Plan for the Fiscal 2013

	FY 2012	FY 2013 2013 (Revised Plan)				
(millions of yen)	Fiscal (Results)	2Q (Results)	Second half (Plan)	Fiscal (Plan)	Year on Year (%)	Fiscal (Beginning of the period)
Orders-received	30, 412	15, 551	17, 449	33, 000	8. 5%	32, 000
Net sales	30, 799	14, 039	17, 961	32, 000	3. 9%	32, 000
Gross profit [Profit ratio (%)]	10, 281 [33, 4%]	4, 788 [34. 1%]	6, 212 [34. 6%]	11, 000 [34, 4%]	7. 0%	11, 000 [34, 4%]
Operating income (loss) [Profit ratio (%)]	1, 866 [6. 1%]	680 [4. 8%]	1, 620 [9. 0%]	2, 300 [7. 2%]	23. 3%	2, 300 [7. 2%]
Ordinary income (loss) [Profit ratio (%)]	2, 162 [7. 0%]	811 [5. 8%]	1, 589 [8. 9%]	2, 400 [7. 5%]	11.0%	2, 400 [7. 5%]
Net Income [Profit ratio (%)]	1, 219 [4. 0%]	503 [3. 6%]	797 [4. 4%]	1, 300 [4. 1%]	6. 7%	1, 300 [4. 1%]
Capital expenditures	794	276	590	866	9. 1%	630
Depreciation expenses	485	267	308	575	18. 6%	605
R&D expenditures	1, 142	487	513	1, 000	Δ12. 4%	1, 110
Profit Per Share (yen)	52. 43	21. 65	34. 24	55. 89	6. 6%	55. 89

# Equipment Business

	FY 2012	FY 2013 (Revised Plan)				
(millions of yen)	Fiscal (Results)	2Q (Results)	Second half (Plan)	Fiscal (Plan)	Year on Year (%)	Fiscal (Beginning of the period)
Orders- received	24, 051	12, 682	13, 818	26, 500	10. 2%	25, 500
Net sales	24, 368	11, 320	14, 180	25, 500	4. 7%	25, 500
Operating income [Profit ratio (%)]	1, 339 [5. 5%]	575 [5. 1%]	1, 075 [7. 6%]	1, 650 [6. 5%]	23. 2%	1,650 [6. 5%]

# Service Business

	FY 2012	FY 2013 (Unrevised)			
(millions of yen)	Fiscal (Results)	2Q (Results)	Second half (Plan)	Fiscal (Plan)	Year on Year (%)
Orders-received	5, 169	2, 493	2, 807	5, 300	2. 5%
Net sales	5, 201	2, 306	2, 994	5, 300	1. 9%
Operating income [Profit ratio (%)]	650 [12. 5%]	177 [7. 7%]	423 [14. 1%]	600 [11. 3%]	Δ7. 7%

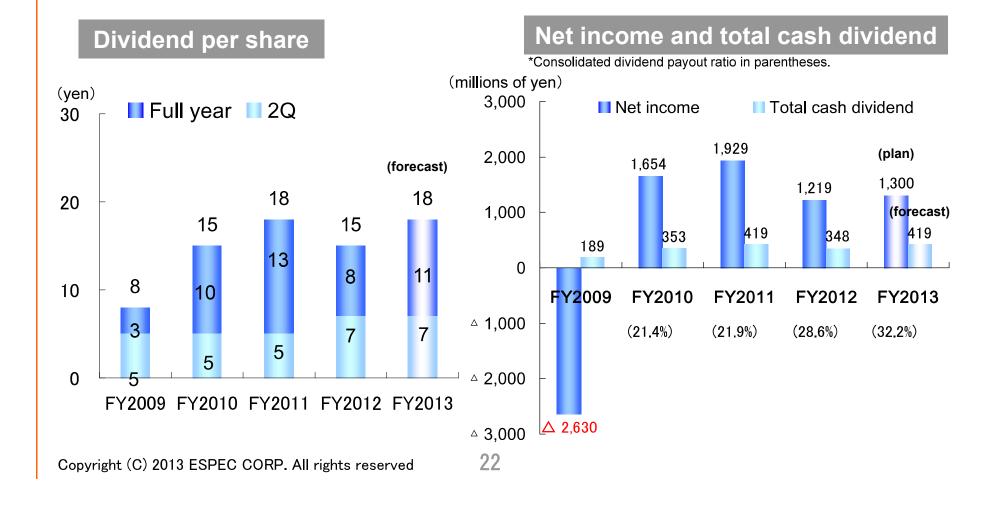
# Other Business

	FY 2012	FY 2013 (Unrevised)				
(millions of yen)	Fiscal (Results)	2Q (Results)	Second half (Plan)	Fiscal (Plan)	Year on Year (%)	
Orders-received	1, 322	464	836	1, 300	<b>△1.</b> 7%	
Net sales	1, 365	496	804	1, 300	Δ4. 8%	
Operating income [Profit ratio (%)]	△ <b>123</b> [ <b>-</b> %]	△ <b>72</b> [−%]	122 [15. 2%]	50 [3. 8%]	_	

## **Dividends**

#### **Dividend policy**

Recognizing 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.





Action items for the Second-half Periods of the Fiscal Ending March 31, 2014

# Expand the scope of measures in green technology markets

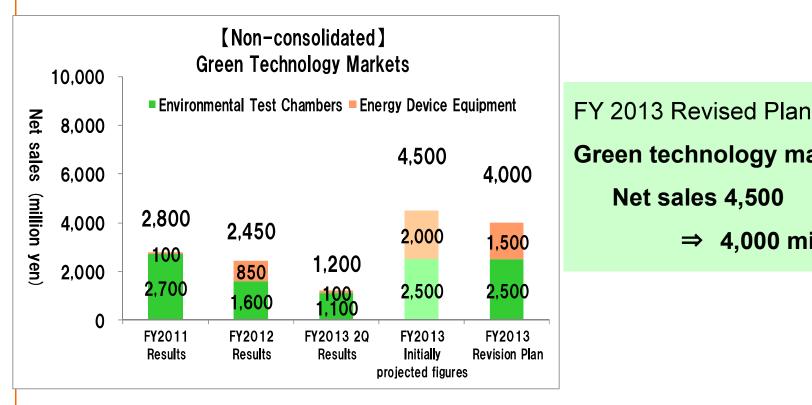
#### Results of first half

Environmental Test Chambers: Sales of walk-in type temperature (& humidity) chambers

remained solid in particular.

Energy Device Equipment: Although the number of inquiries increased sharply,

the amount of orders received did not increase.



**Green technology markets Net sales 4,500** 

⇒ 4,000 million yen

# 1 Expand the scope of measures in green technology markets

#### **Environmental Test Chambers**

actual

vehicle

Electronic device for vehicle

Expand sales based on successful sales examples in the first half



Customized product of walk-in type temperature & humidity chamber

#### **Energy Device Equipment**

secondary

batteries

power

semiconductors

fuel cells

Receive orders based on inquiries in the first half Establish the Energy Device Environmental Test Center

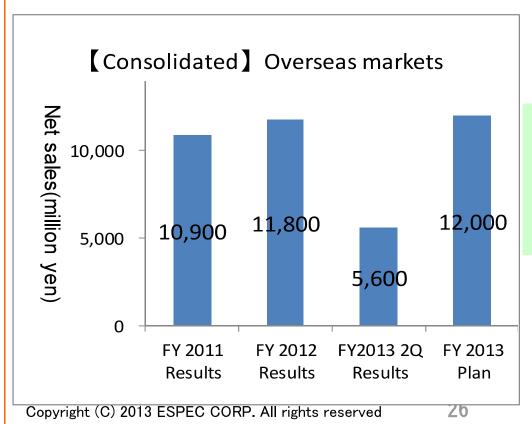


charge-discharge cycle evaluation equipment

# 2 Accelerate China and Asia strategies aimed at establishing Multi-standard product lineups, and deeply cultivating Southeast Asian markets

#### Results of first half

**China and Asia:** Sales of subsidiaries in China and export to Southeast Asia decreased. **Europe and America:** Sales to automobile-related manufacturers remained solid in particular.



FY 2013 Plan (Unrevised)

Overseas markets

Net sales 12,000 million yen

# 2 Accelerate China and Asia strategies aimed at establishing Multi-standard product lineups, and deeply cultivating Southeast Asian markets

Expand sales in the automobile market in particular

Expand exports by offering a one-stop service through the ASEAN Support Desk

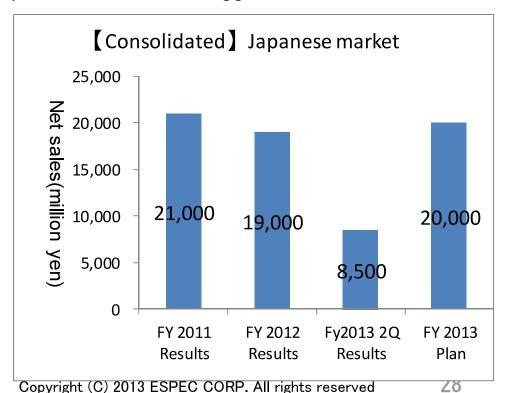
Manufacturing subsidiaries of China

Expand sales in China and expand exports to Southeast Asia

# 3 Expand the scope of business in the Japanese market and enhance the efficiency of existing businesses

#### Results of first half

- Sales in the automobile-related markets were brisk. Sales of customized products were solid.
- Other markets did not show full recovery in investment. Sales of general-purpose standard products remained sluggish.



FY 2013 Plan (Unrevised)

Japanese market

Net sales 20,000 million yen

# 3 Expand the scope of business in the Japanese market and enhance the efficiency of existing businesses

Expand sales of customized products in the automobile market

Continue to promote replacement due to model change of main products

Offer ESPEC ONLINE SUPPORT

(the first service of this kind in the industry)

Expand the product lineup in the "life markets"

(pharmaceuticals, cosmetics, and foods)



Testing of actual vehicle



[NEW] Model change (2013 /11)

Bench-top Type Temperature

(& Humidity) Chamber

Quality is more than a word





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:**

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Kenji Fuchita

**Chief Officer** 

Corporate Planning Headquarters

Natsuko Okawa

Corporate Strategy Department

Corporate Planning Headquarters



# Reference

# Company Profile

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 ¥6.895Million

Shares Issued 23,781,394 Shares

Employees 1,329 (consolidated)

Manufacture and Sales of Environmental Test Main Business

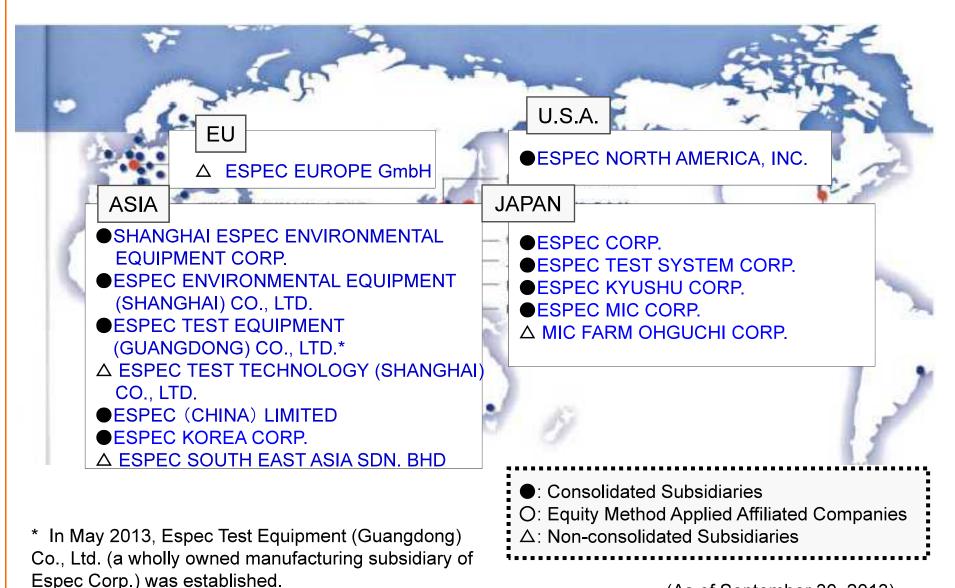
Chambers, Energy Device Equipment, Semiconductor Equipment, FPD Equipment and Plant Factory. Aftersales Service, Commissioned Tests and others.



[Head office]

(As of September 30, 2013)

### Global Network



(As of September 30, 2013)

# Global Network

### Manufacturing subsidiaries of China

1 Trade name	ESPEC TEST EQUIPMENT (GUANGDONG) CO., LTD.
2 Address	Guangzhou City, Guangdong Province, China
3 Representative	Masaaki Ishida, President (President and Representative Director of ESPEC CORP.)
4 Business domain	Manufacture and Sales of Environmental Test Chambers
5 Capital	37 million yuan
6 Investment ratio	ESPEC (CHINA) LIMITED (a wholly owned subsidiary of ESPEC CORP.) 100%
7 Date of establishment	May 7, 2013
8 Account closing month	December

# 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 has been growing in new energy sectors such as secondary batteries and solar batteries.



#### Japan's First Environmental **Test Chamber**



Low temperature & humidity chamber "Lucifer" (1961)

To Domestic Market Share No.1



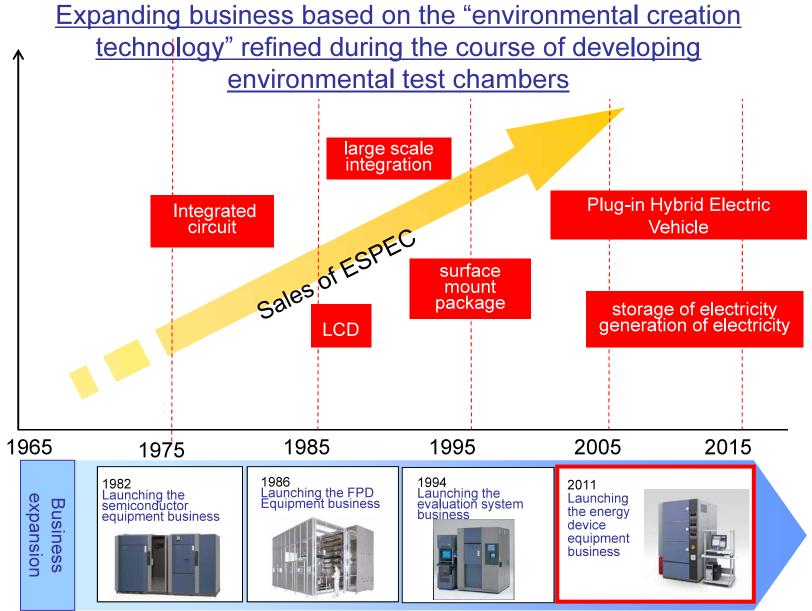
※Our presumption (2011)

Temperature & humidity chamber "Platinous J series"

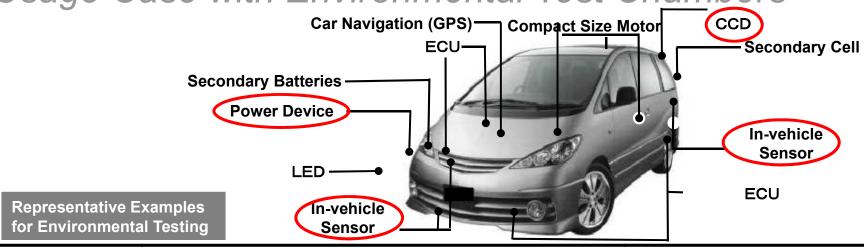
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## Transition in Business



# [Equipment Business] Usage Case with Environmental Test Chambers



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

## [Equipment Business] Introduction of New Products

Release Date	Name of product	Features
2013/11	Bench-top Type Temperature (& Humidity) Chamber	<ul><li>Ease of system configuration</li><li>Enhanced network-based functions</li></ul>
2012/12	Advanced Battery Tester Enhance the product lineup	<ul> <li>Charge-discharge evaluation systems for Secondary batteries</li> <li>Increasing test processing volume and test current</li> </ul>
2012/5	Vacuum Oven	•Saving energy up to 40% •Ease of customization
2012/5	Stability test chamber	<ul> <li>(First in the industry)</li> <li>±2° C ±5% guarantee for the temperature/humidity settings</li> </ul>
2012/3	Temperature ( & Humidity ) Chamber Platinous J Series (Addition of 6 type)	• Full lineup
2011/11	Thermal Shock Chamber TSA Series EH Type	<ul><li>Saving energy up to 50%</li><li>Increasing the reliability of refrigeration circuits</li></ul>
2011/10	Temperature ( & Humidity ) Chamber Platinous J Series	<ul> <li>Saving energy up to 70%</li> <li>Ease of customization •Extensibility of functions (e.g., telecommunications networks)</li> </ul>
2010/11	Walk in Type Temperature ( & Humidity ) Chamber E Series	•Saving energy up to 60%
2010/9	Thermal Shock Chamber TSA Series E Type 2013 ESPEC CORP. All rights reserved	•Saving energy up to 37%

## [Equipment Business] TOPICS

The Platinous J series temperature (& humidity) chambers won the 33rd Superior Energy Conserving Machinery Award, following the Good Design Award 2012!

The J series won the Japan Machinery Federation's President Award for Superior Energy Conserving Machinery Award at the 33rd Awards Ceremony, following the Good Design Award 2012.

The J series was highly evaluated for its various environmental features, including energy conservation, CFC-free design, and low-noise and low-vibration capability.





**Superior Energy Conserving Machinery** 

## Japan Machinery Federation's President Award

Fiscal year 2012, Japan Machinery Federation

Organized by the Japan Machinery Federation, this annual event has been held since fiscal year 1980.

<sup>\*</sup> Superior Energy Conserving Machinery Award

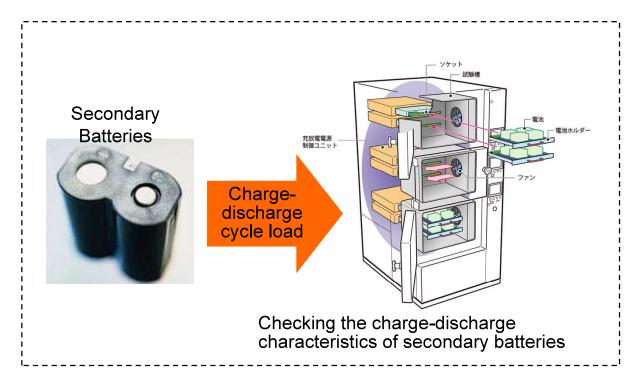
# [Equipment Business] Usage Case with Energy Device Equipment

### **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

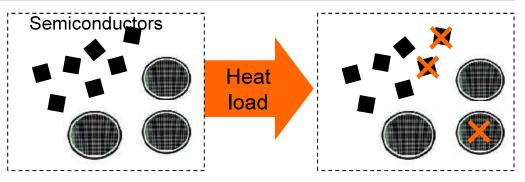
## [Equipment Business] Usage Case with Semiconductor Equipment

#### **Screening**

Used for inspection in the manufacture of semiconductor devices to ensure product reliability suitable for mass production



Burn-in chamber



Elimination of latent early failures

#### **Reliability Evaluation**

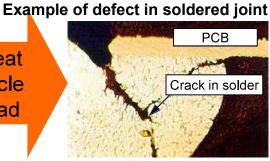
Used to evaluate basic failure patterns to ensure reliability in the development of new technologies



Conductor resistance evaluation system



Heat cycle load



Electrical evaluation of reliability of joints in electronic parts

#### [Equipment Business] Usage Case with FPD Equipment [Cell Process] **Color Filter Process** Transparent electrode formation process Source R,G,Bformation process Orientation film baking process Protection film **BM Process** Pre bake /Post ba Lamination Glass Process **(**Single Loading Plate Processing System Vertical Clean Oven Completion Cleaning process Assembly Resist spreading Module Exposure and Development re bake TFT process Seal stiffening process process Process Source TFT Process Glass substrate [ Array Process ]

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## [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
- Extending support through a full-fledged global framework, with distributors located in many countries

#### **Commissioned Tests and Facility Rentals**

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

- Meeting new test needs whenever they arise
- •Introducing equipment to meet emerging needs such as charge-discharge tests for secondary batteries
- → Reinforcing the Utsunomiya Test Center, as the exclusive test center for secondary batteries.
- Introducing new products (e.g., energy-saving models) on an ongoing basis
- The company has four commissioned test centers in Japan (Utsunomiya, Toyota, Kariya and Kobe).
- •These centers are IECQ-approved independent testing laboratories that meet ISO/IEC17025 standards.
- The centers are also recognized as official calibration facilities under the Japan Calibration Service System (JCSS).



[Commissioned test center in Kobe]

## [Service Business] TOPICS

The first service of this kind in the world!

ESPEC ONLINE SUPPORT started in November 2013.

After-sales service calls:

from customers to the manufacturer

breaking conventional wisdom

from the manufacturer to customers



Customers



**ESPEC** 

## [Service Business] TOPICS

The Energy Device Environmental Test Center was established with the latest "first-in-the-world" equipment developed in-house.

In November 2013, the test center was established at the Utsunomiya Test Center.

This commissioned test center specializes in reliability and safety testing of energy devices.

(energy devices: secondary batteries, power semiconductors, and solar batteries)

#### **Examples of equipment introduced**



External short-circuit testing equipment
Capable of handling up to 24 kA current
(the first in the world)



Nail penetration/crush testing equipment Capable of handling cells and battery packs

## [Other Business] Environmental Engineering Business

#### **Environmental Engineering Business**

- 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 factory**

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



**Container plant factory** 



Phyto-toron

## [Other Business] TOPICS

Toward the reconstruction of areas affected by the earthquake,
Kawauchi Highlands Agricultural Plant Growth Facility started operation
in Kawauchi Village, Fukushima Prefecture.

The plant growth facility (100% artificial lighting type) was delivered by ESPEC MIC CORP. in collaboration with other manufacturers. Production of vegetables started to revitalize agriculture and create jobs in the disaster-stricken area.

