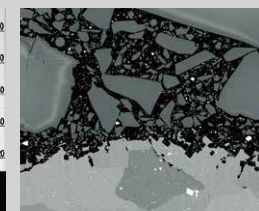


MEC

COMPANY PROFILE



MEC was founded in 1969, and mainly develops, manufactures, and sells chemicals for the production of printed circuit boards. Our company is technology driven and therefore excels in research and development focused on metal surface treatment for the electronics industry. As a specialized niche-player, a number of our chemical products dominate the global market in their field of application. Our business extends not only within Japan, we also serve customers in Continental Asia, Europe, the America's, India, The Middle-East and North-Africa as a trustworthy global company.



Invisible things and items made by a chemical manufacturer.

The chemicals we manufacture make an invisible micron world.

They are used in invisible places, but are indispensable chemicals for fabricating substrates and they create an invisible interface between substances.

In addition, in order to aim for the best product quality and increase reliability, we invest about 10% of our consolidated sales in R&D, and are particular about raw material procurement, manufacturing processes, and shipping methods that customers do not see.

And we continue to expand our circle of trust around the world and contribute to people's lives.



Management Philosophy

The MEC group will contribute to the creation of a prosperous and diverse society and sustainable environment, inspired by an unconventional approach based on the principles of "Visionary Technology", "Reliable Quality" and "Meticulous Service", thereby creating and fostering value at various interfaces through our global activities.

Corporate Motto

Enjoy Your Work



PRESIDENT'S MESSAGE

Providing high-quality products and services, which deliver well defined added value to our customer's production process, makes all involved enthusiastic on MEC's contribution to a brighter future.

Ever since our founding, the MEC Group has continued to support the growth of the electronics industry by developing, producing and selling the chemicals used during the production of printed circuit boards (PCB).

In growing our business, we have placed research and development at the core of our company's management, and feel it is our mission to provide the chemicals our customers request when offering innovative products to society. At the same time, as a technology-partner, we continuously work to create new chemicals that will trigger our customer's enthusiasm when developing their roadmaps for future technologies. This approach has led us to closely observe trends in the electronics industry, to try and find out the demands of our customers and to tirelessly advance our research and development as we sow the seeds of the future.

We go way beyond simply providing chemicals, our added value is based on a transfer of technological knowledge thus technical support and keeping our partners informed on the up-and coming technologies is equally important. As such, we continue to serve as a company that offers unwavering customer satisfaction with strengths in providing both the state-of-the-art tangible, our chemicals, as well as the intangible related technologies.

More recently, we have set our sights on all of the changes occurring during the upcoming fourth industrial revolution, symbolized by the development of the "Internet of Things" and "Artificial Intelligence". In this light, we are enhancing our corporate structure with new business units that adopt the technologies we have acquired through the development of chemicals for PCB fabrication in entirely new fields of application.

Just as before, these new businesses will unflinchingly provide high-quality products and services with substantial added value, thus contributing to a brighter future for our society.

President & CEO
前田和夫
Kazuo Maeda





Our chemicals create a hidden world one can only explore with the strongest microscopes.

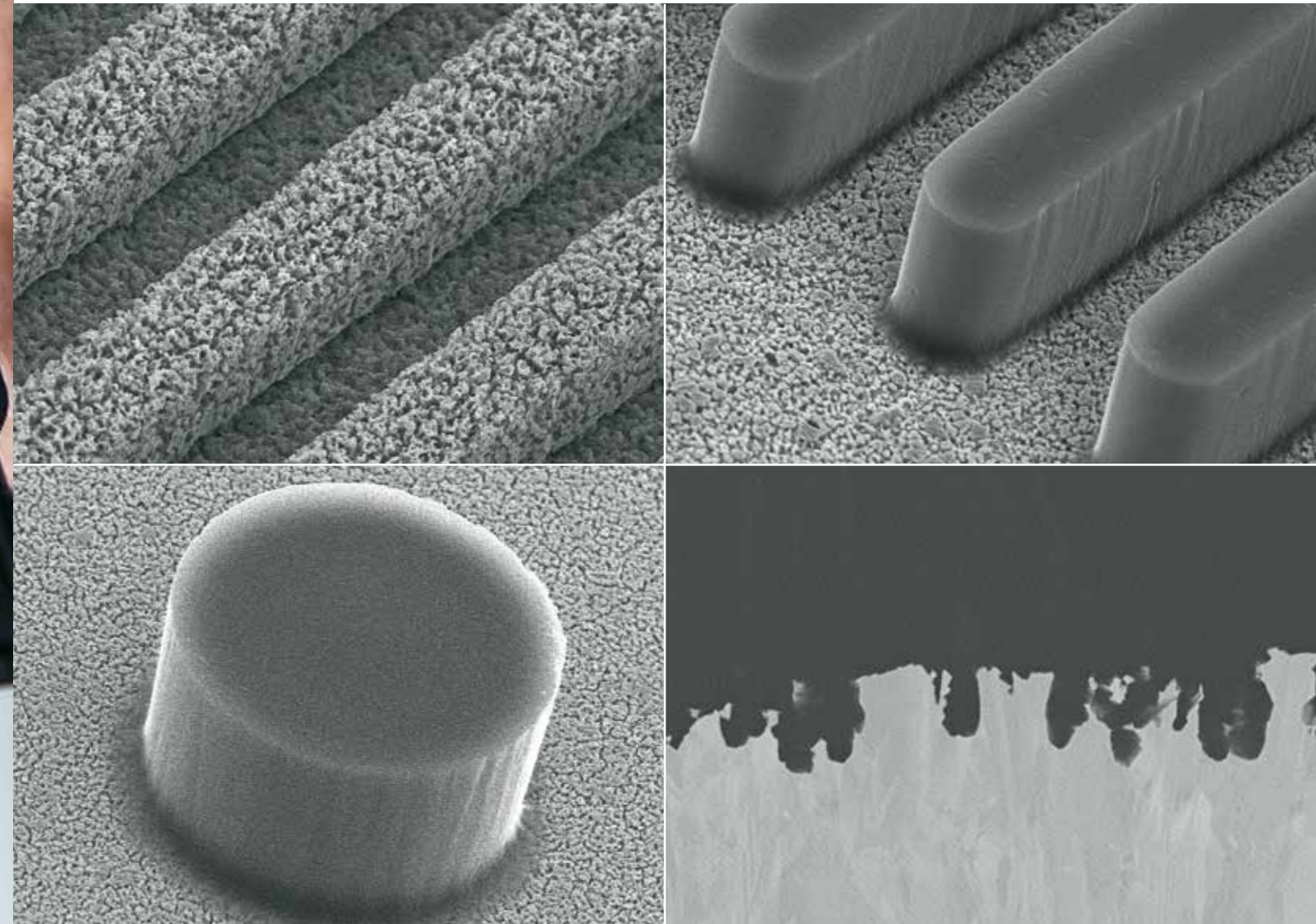
Creating and fostering value at various interfaces

Our strength is our "Surface Creation Technologies," realized through continuous research and development into our core copper surface treatment technologies acquired over the years.

Our chemicals create the hidden "surfaces" that form the boundaries between metal and resin.

In particular, we excel at adhesion reliability, one important aspect of interfaces during precision electronic Circuit patterning. Our chemicals dissolve and modify metal surfaces to provide for an enhanced adhesion between the various layers which compose a Printed wire board.

In this way, our technologies that create these interfaces have played a role in evolving and advancing electronics.



MORE
INFORMATION

Although used in hidden places,
our chemicals are essential in
the production of PCB's.

APPLICATION EXAMPLES

Our chemicals are used during the production of cutting-edge multilayer PCB's, build-up PCB's and semiconductor package PCB's. All these PCB's require the type of advanced metal surface treatment our products provide for. Together with the semi-conductors and newly developed user-interfaces, these PCB's are at the core of the latest developments in the ever dynamic world of electronic applications.

AUTOMOBILE



Practical use of self-driving vehicles, automobiles will increasingly be equipped with electronics and more advanced functions. Likewise, the world will see a rapid increase in the number of equipped devices, including sensors and perimeter viewing cameras. The MEC Group supports the enhanced reliability of these devices.

COMPUTER



With the demand for enhanced computer processing capacity and lower power consumption, technology for mounting CPUs, memories, etc. on a single package board is advancing. As a result, package substrates are becoming increasingly high-definition and multi-layered, and the area is increasing. MEC Group's chemicals are highly trusted in the fabrication processes for these PCBs.

SMARTPHONE



The efforts to transition to the fifth-generation mobile communication system (5G) are progressing. In response to these faster networks, smartphones themselves will require faster processing capability. MEC Group's interface treatment technologies support higher performance and lighter weights.



MORE
INFORMATION



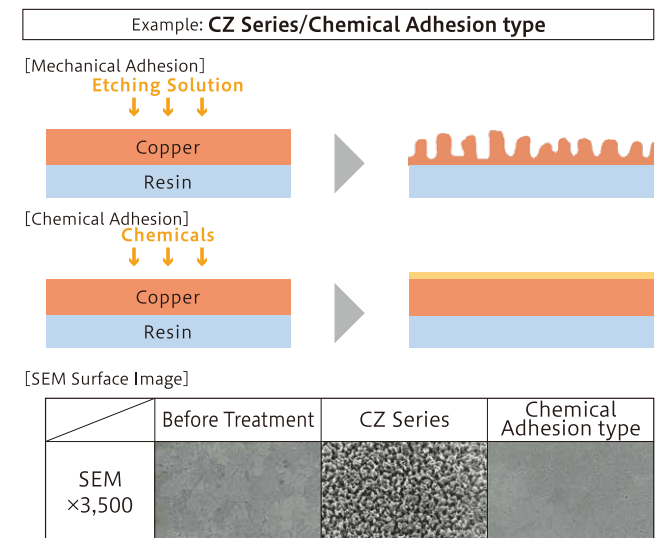
We create the hidden interfaces between substances.

TECHNOLOGY

Our core metal surface treatment technologies offer added value by dissolving metal. As IoT develops, more advanced, smaller, and lighter electronics will play a role in an expanding range of fields. We enhance the reliability of these electronic devices with our unique hidden Surface Creation Technologies.

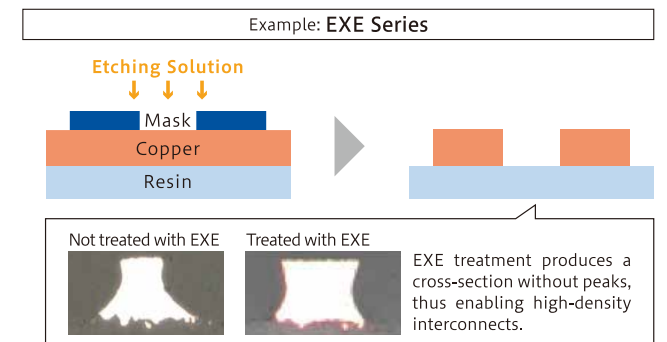
Adhesion Enhancing Technology

This technology adheres metal and resin by chemically treating the metal surface. "Mechanical Adhesion" utilizes the anchor effect*1 of a unique microscopic topography formed on the surface of metal. "Chemical Adhesion" enhances adhesion through the chemical action of a film formed on the surface of metal.



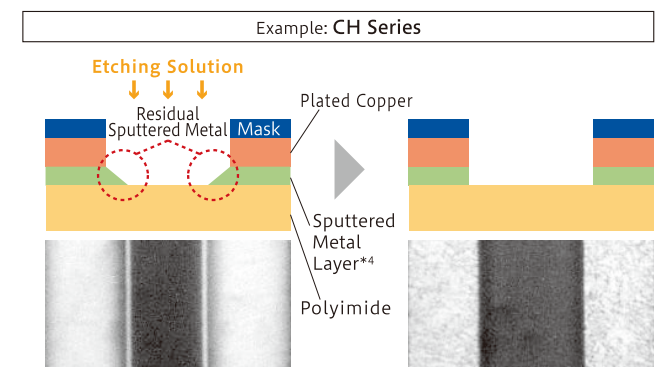
Micro-interconnect Patterning Technology

This technology forms the microscopic interconnect patterns used in PCB. This subtractive technique*2 can also form high-density interconnects.



Selective Etching Technology

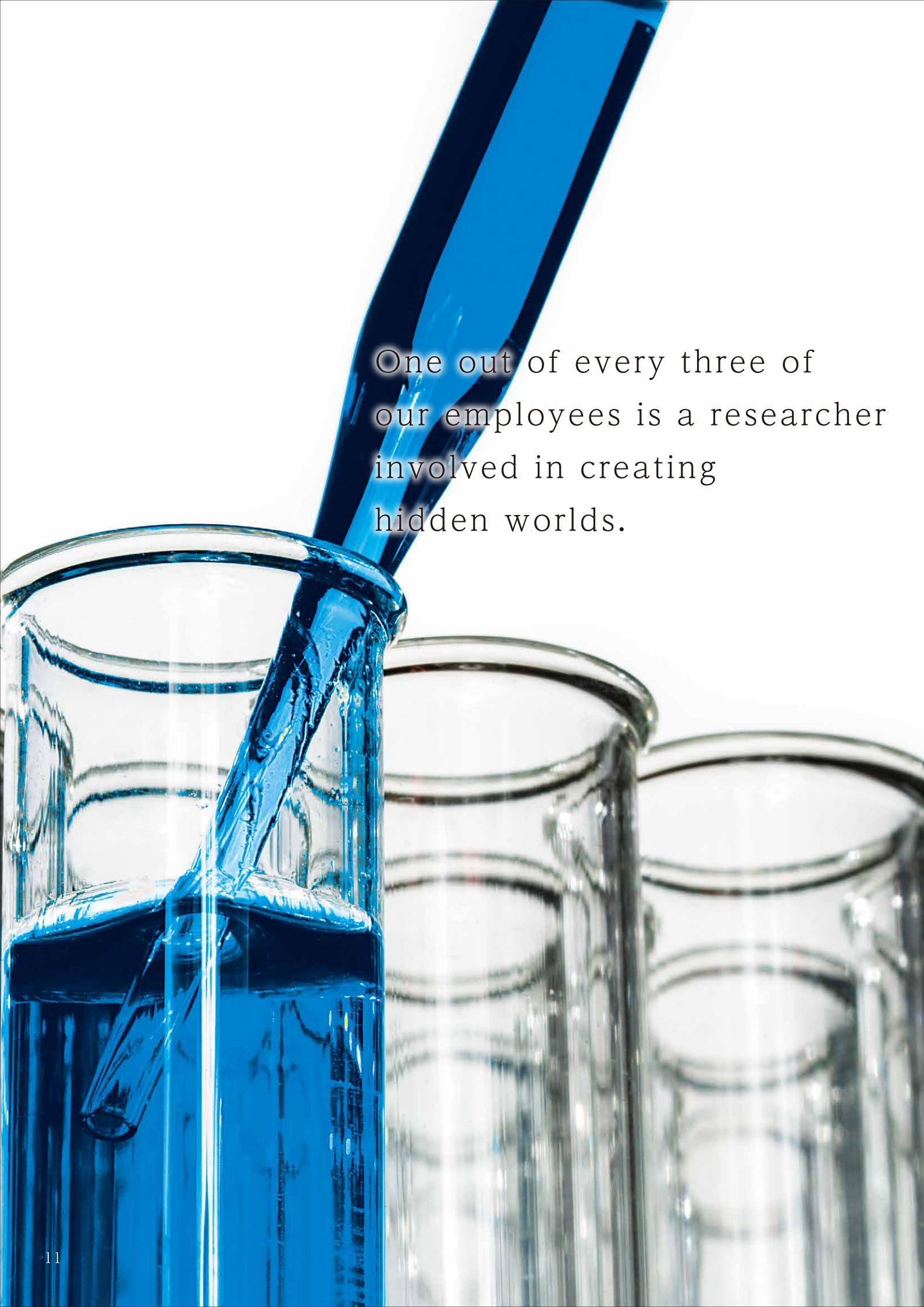
When two or more metals coexist, this technology etches*3 one specific metal without affecting the other metals.



*1 Anchor Effect: an effect wherein a melted resin enters and hardens inside the microscopic roughness on the metal surface to enhance adhesion.
 *2 Subtractive Technique: a technique whereby interconnect patterns are formed via etching to remove excess areas of copper.
 *3 Etching: a surface processing technique whereby the metal surface is dissolved with chemicals.
 *4 Sputtered Metal Layer: a metal vacuum deposition layer formed on the polyimide surface to provide electrical conductivity.



MORE INFORMATION



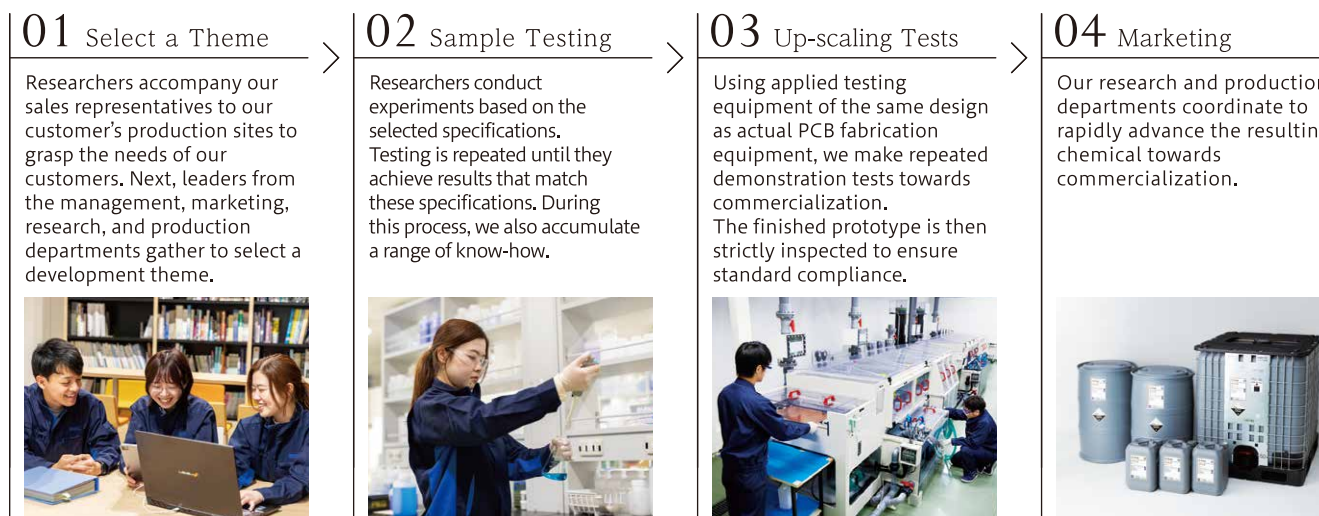
One out of every three of our employees is a researcher involved in creating hidden worlds.

RESEARCH & DEVELOPMENT

Research and development is the strength of the MEC Group. Roughly one out of every three individuals directly employed by the MEC Group is involved in research and development, in which we invest approximately 10% of our consolidated revenue.

To create our microscopically small hidden worlds, we have organized a system to tackle product development that responds rapidly and flexibly to market needs.

Research and Development: process flow



Analysis Equipment

XPS
(X-ray photoelectron spectroscopy)



This device can analyze the constituent elements of the substance surface and the chemical bonding condition.

FE-SEM
(field emission scanning electron microscopy)



This device can observe metals, minerals and organic components at a magnification power of 250 thousands to 1 million times.

Confocal Microscopy

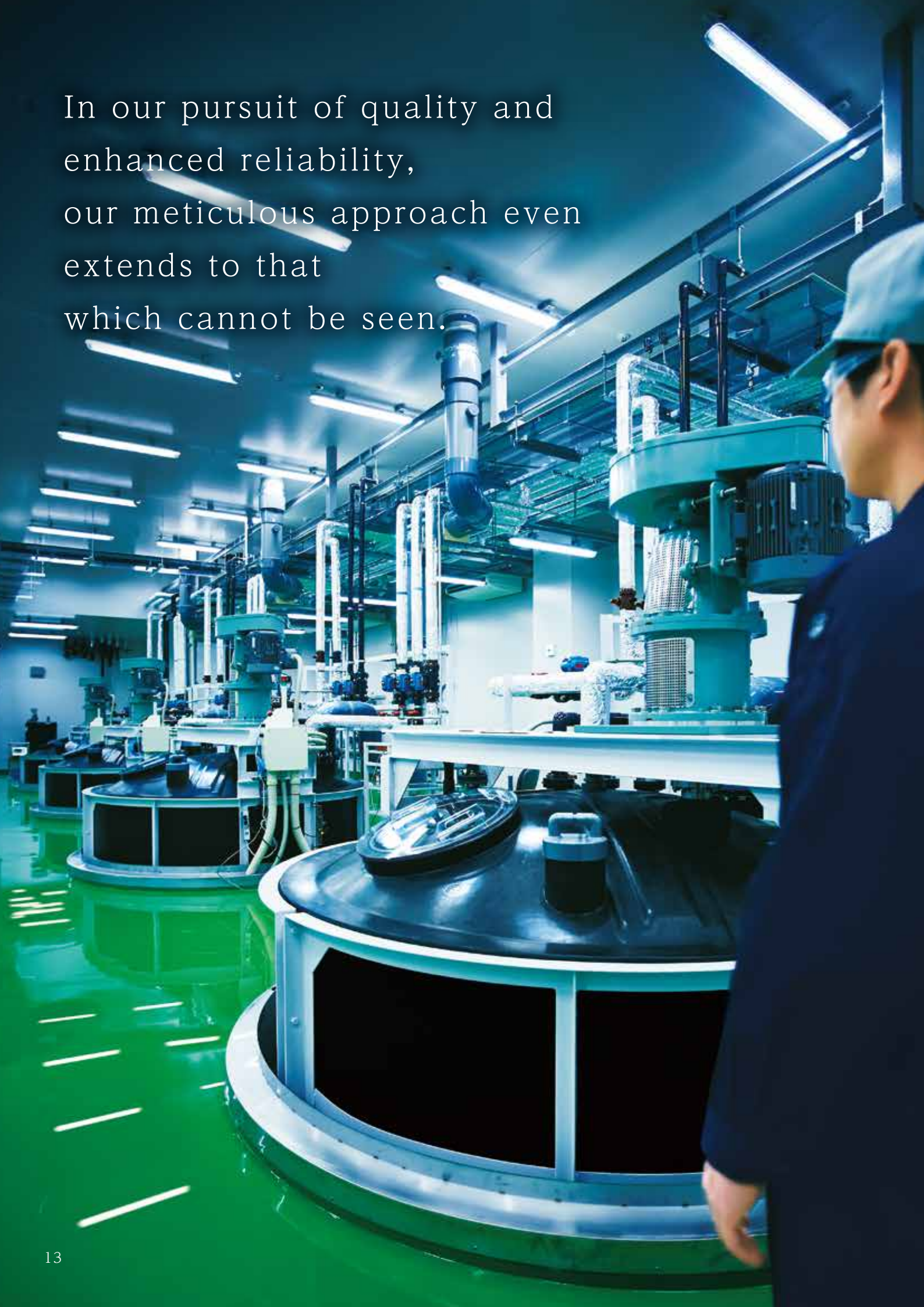


This Device is able to resolve objects in the Z-axis, so can be used to measure the topography of object surfaces and roughness.



MORE INFORMATION

In our pursuit of quality and enhanced reliability, our meticulous approach even extends to that which cannot be seen.



QUALITY

The MEC Group tirelessly pursues enhanced quality and reliability: We work meticulously, even when it comes to those aspects that cannot be checked by our customers, all the way from raw material procurement to the production process and shipment method. Full customer satisfaction is our target, a goal we are not only aiming at by delivering our finest chemicals, but also by going the extra mile when providing customer support.

From Procurement to Shipment

01 Blending

- Every aspect from raw material delivery to receiving inspection and use in products is recorded and controlled
- Barcode control is used to specify and measure the required weight of the ingredients to be blended
- Barcode control is used to feed the ingredients into the blending tanks



02 Final Inspection

- Chemicals are checked against MEC Group standards
- Finished chemicals are checked for performance



03 Filling

- Chemicals that have passed final inspection are filled into containers
- Chemicals are stored in our warehouses until shipment
- Containers are washed after use and reused



04 Shipment

- Barcodes are used to manage the history of lot numbers and shipment destinations, etc.
- Samples for all chemicals are stored for a specific time



About Quality Management

Traceability Management



To prevent human error and strengthen traceability and quality management, we have adopted a "Blending Control System" and "Shipment Management System." We have also taken steps to convert blending operation management to an online system, prevent material input problems, and automate record keeping for production and operations. In addition, we manage the history of each customer order from raw material ordering and receiving inspection to shipment.

Product Management System



When a chemical is prepared for shipment from one of our warehouses, we manage and record the history by logging the details of the shipment instructions, including shipment destination, product and number of units.

Quality and Environmental Management System



Through "Visionary Technology," "Reliable Quality," and "Meticulous Service," we aim to pursue quality and enhance reliability under our management philosophy of contributing broadly to the development of society. In this light, we have also acquired ISO9001 and ISO14001 certification for all of our plants in Japan and around the world.



MORE INFORMATION

Expanding the circle of reliability

to the world.



JAPAN

GLOBAL BASE

Head Office (Amagasaki)



3-4-1 Kuise Minamishimmachi, Amagasaki, Hyogo 660-0822, JAPAN
 (Main) TEL. +81-6-6401-8160
 FAX. +81-6-6401-8165
 (Sales) TEL. +81-6-6401-8162
 FAX. +81-6-6401-8166
 (R&D Center)
 TEL. +81-6-6401-8170
 FAX. +81-6-6401-8172
 (Amagasaki Factory)
 TEL. +81-6-6401-8163
 FAX. +81-6-6401-8167
 Production Capacity: 900 t/mo.
 Site Area: 14,214 m²
 (Total for Amagasaki facility)
 Floor Area: 9,602 m²
 (Total for Amagasaki facility)
 Operations: Since April 2017

Head Office (Higashi-hatsushima)



1, Higashi-Hatsushima, Amagasaki, Hyogo 660-0832, JAPAN
 TEL&FAX are same as the H.O. (Amagasaki).

Tokyo Sales Office



Tachihi Bldg. 7-7F, 6-1-1 Sakae-cho, Tachikawa, Tokyo 190-0003, JAPAN
 (Main) TEL. +81-42-538-1080
 FAX. +81-42-538-1090

Nagaoka Factory



221-36 Seiryomachi, Nagaoka, Niigata 940-2045, JAPAN
 (Main) TEL. +81-258-47-2490
 FAX. +81-258-47-2493
 Production Capacity: 2,750 t/mo.
 Site Area: 20,877 m²
 Floor Area: 4,901 m²
 Operations: Since May 1993

MEC CHINA SPECIALTY PRODUCTS (SUZHOU) COMPANY LTD.



31 Linjiang Road, Suzhou Industrial Park, Jiangsu 215121, China
 TEL. +86-512-6745-1990
 FAX. +86-512-6745-1993
 Production Capacity: 450 t/mo.
 Site Area: 9,270 m²
 Floor Area: 3,679 m²
 Establishment: October 2001

MEC FINE CHEMICAL (ZHUHAI) LTD.



530 An Ji East Road, Sanzao Town, Jinwan Qu, Zhuhai City, Guang Dong, 519040, China
 TEL. +86-756-762-2328
 FAX. +86-756-762-2628
 Production Capacity: 1,000 t/mo.
 Site Area: 10,008 m²
 Floor Area: 3,634 m²
 Establishment: December 2002

MEC TAIWAN COMPANY LTD.



No.3, Ziqiang 6th Rd., Zhongli Dist., Taoyuan City 32063, Taiwan R.O.C
 TEL. +886-3-434-3549
 FAX. +886-3-434-5047
 Production Capacity: 1,200 t/mo.
 Site Area: 7,385 m²
 Floor Area: 4,661 m²
 Establishment: April 1990

MEC EUROPE NV.



Kaleweg 24-26, B-9030 Gent, Belgium
 TEL. +32-9-216-7272
 FAX. +32-9-216-7270
 Production Capacity: 400 t/mo.
 Site Area: 5,000m²
 Floor Area: 2,638m²
 Establishment: November 1992

MEC SPECIALTY CHEMICAL (THAILAND) CO.,LTD.



31 Moo 1 Rojana Industrial Park T. Banchang, A. Uthai, Ayutthaya 13210.
 TEL. +66-35-355-850-53
 FAX. +66-35-355-854
 Production Capacity: 500 t/mo.
 Site Area: 9,564m²
 Floor Area: 3,979m²
 Establishment: May 2017

MEC (HONG KONG) LTD.



No.8, 12/F., Tower 3 China Hong Kong City, 33 Canton Road, Tsimshatsui, Kowloon, Hong Kong
 TEL. +852-2690-2255
 FAX. +852-2690-2262
 Establishment: March 1996



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Corporate Profile

MEC COMPANY LTD.

Headquarters

3-4-1 Kuise Minamishimmachi, Amagasaki, Hyogo 660-0822

Business Fields

Research, production, and sale of chemicals used for PCB and component fabrication and sales of equipment and materials

Founded

May 1, 1969

Capital

¥594,142,400

Stock Market Listing

Tokyo Stock Exchange Prime Market Section (Code: 4971)

Employees

454 (consolidated), 263 (non-consolidated)
(as of December 31, 2023)

Directors

President & CEO
Kazuo Maeda

Executive Operating Officer
Toshiko Nakagawa

Executive Operating Officer
Sadamitsu Sumitomo

Outside Director
Toshihiko Hojo

Outside Director/Chairman of the Audit and Supervisory Committee
Mitsutoshi Takao

Outside Director/Audit and Supervisory Committee Member
Kaoru Hashimoto

Outside Director/Audit and Supervisory Committee Member
Eiji Miyashita

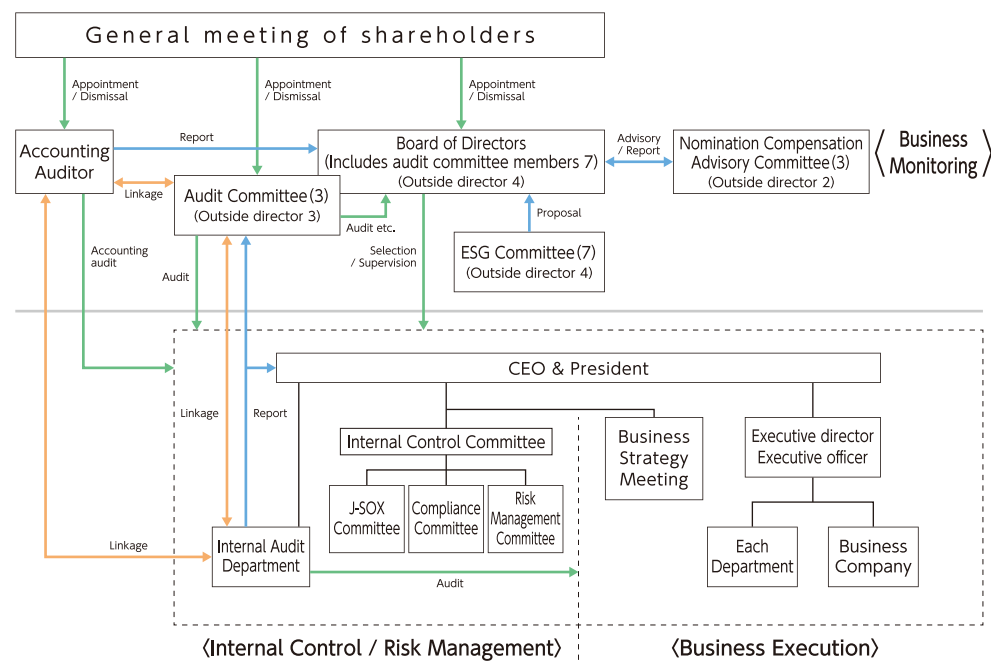
(as of March 19, 2024)

History

May 1969	MEC is established in Kita-ku, Osaka
February 1970	Sale of copper and solder surface treatment begins
September 1971	MEC exhibits at the 1st JPCA Show and all subsequent shows
April 1975	Tokyo Sales Office Opens in Tachikawa, Tokyo
October 1979	Sale of HAL FLUX begins
July 1981	Headquarters constructed in Higashi-hatsushimacho, Amagasaki, Hyogo Prefecture
June 1985	Nishinomiya Factory constructed in Nishinomiya, Hyogo Prefecture
April 1989	R&D Center added to MEC Headquarters
April 1990	First overseas branch opens in Taiwan (currently MEC TAIWAN)
November 1992	MEC EUROPE (Gent, Belgium) established as a local subsidiary
May 1993	Nagaoka Factory and Nagaoka Sales Office constructed in Nagaoka, Niigata
January 1995	Sale of MECetchBOND CZ Series copper surface roughening treatment begins
March 1996	MEC HONG KONG established as a local subsidiary
January 2001	MEC is listed on the Osaka Securities Exchange NASDAQ Japan Market (currently JASDAQ Securities Exchange)
October 2001	MEC CHINA SPECIALTY PRODUCTS (SUZHOU) established as a local subsidiary
May 2002	R&D Center expanded
December 2002	MEC FINE CHEMICAL (ZHUHAI) established as a subsidiary of MEC HONG KONG
April 2003	MEC is listed on the Tokyo Stock Exchange Second Section
March 2007	MEC is listed on the Tokyo Stock Exchange First Section
September 2009	MEC is de-listed from the Hercules Market of the Osaka Security Exchange (currently JASDAQ Securities Exchange)
October 2016	Construction of Amagasaki Head Offices completed
January 2017	Head office and R&D relocated to "Minamishimmachi, Amagasaki, Hyogo"
April 2017	Started operation of Amagasaki factory in "Minamishimmachi, Amagasaki, Hyogo"
May 2017	MEC SPECIALTY CHEMICAL (THAILAND) established as a local subsidiary
April 2022	Shift to "Prime Market" due to reorganization of new market division of Tokyo Stock Exchange
August 2023	Relocating a portion of its headquarters department to Higashi-hatsushima R&D Center The name of Higashi-hatsushima R&D Center is changed to Higashi-hatsushima office

Corporate Governance

The MEC Group holds monthly Board of Directors meetings to make important management decisions and supervise the performance of the directors. The MEC Group has also adopted an Executive Officer System to allow our executive officers to concentrate on the execution of duties and to expedite decision making by the Board of Directors.



(as of March 19, 2024)



MORE
INFORMATION