October 2021 | VOL.4

Rizm

PRODUCTION CENTER OPERATION FULLY STARTED

RIKEN KEIKI Co.,Ltd.

PRODUCTION CENTER FULL-SCALE OPERATION STARTED.

Special Feature: Full-scale Operation of the Production Center

Development and Production Integration: Accelerating Sustainable Management Through the Pursuit of Advanced, High-quality Sensors and a Comprehensive Supply Chain

RIKEN KEIKI Co., Ltd.
Executive Managing Director
Executive General Manager of Production Division
and General Manager of Production Management Department

President
RIKEN KEIKI NARA MFG. Co., Ltd.

Tetsuya Matsumoto

Tetsuya Matsumoto

Oct. 13, 1964 Born in Tokyo/Graduated from Chuo University's School of Commerce
Apr. 1987 Joined RIKEN KEIKI
Jul. 2006 Executive Officer, General Manager of Accounting Department, and Manager of Management Audit Office
Jul. 2007 Executive Officer, General Manager of Accounting Department, Corporate Administration Division, and General Manager of President's Office
Jun. 2009 Executive Managing Director, General Manager of Administration Department, Corporate Administration Division, and Manager of Corporate Strategy Office
Jun. 2017 Executive Managing Director, General Manager of Accounting Department, Corporate Administration Division and Manager of Corporate Strategy Office
Oct. 2018 Executive Managing Director
President, RIKEN KEIKI NARA MFG. Co., Ltd. (current position)
Apr. 2021 Executive Managing Director, Executive General Manager of Production Division, and General Manager of Production Management Department

Last July, RIKEN KEIKI completed the Production Center on the Development Center campus in Kasukabe City, Saitama. This new manufacturing facility is finally up and running in coordination with the Development Center as of April 2021. The Production Center will focus on manufacturing the sensors at the core of RIKEN KEIKI products. At the same time, Executive Managing Director Tetsuya Matsumoto will take command of the new Production Division with his appointment as the Executive General Manager of the Production Division and General Manager of the Production Management Department. We took this chance to interview him about how the Production Center will optimize new product development, supply systems, and the supply chain by integrating development and production. We also discussed the role and objectives of the Production Division as RIKEN KEIKI aims to achieve sustainable management.

A Shift from Accounting and Administration to the Production Division: Leveraging Governance Principals On-Site

—Mr. Matsumoto, you have gained extensive experience since joining RIKEN KEIKI and proven yourself as a manager in charge of corporate administration and strategy. Your career includes not only your role as the General Manager of the Accounting Department as well as the Administration Department under the Corporate Administration Division, but also as General Manager of Corporate Strategy Office, and Executive General Manager of the Corporate Administration Division. You have also served concurrently as the President of our subsidiary RIKEN KEIKI NARA MFG. Co., Ltd. since 2018. This year, RIKEN KEIKI appointed you the Executive General Manager of the Production Division and General Manager of Production Management Department. Thus far, you have supervised decision-making on important matters and business execution during your long tenure as management in the Corporate Administration Division and as a Director. Could you please tell us about your aspirations and goals as the new driving force behind the Production Division?

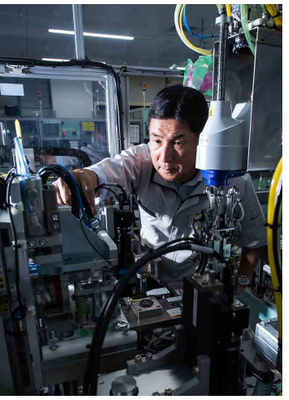
As you said, I first joined RIKEN KEIKI in 1987 as a member of the Accounting Department. My first big project was in March 1988. RIKEN KEIKI almost doubled its capital at the time to the 2,565.5 million yen that we have today. In August 1990, RIKEN KEIKI ESAN MFG. Co., Ltd.*1 was established in Esan*2, Hokkaido based on that capital. Our task was to transfer the sensor division from the Itabashi Headquarters in Tokyo to this new company.

As I am sure you know, Japan was right in the midst of an economic bubble at the time. We chose to set up this new company in Hokkaido because it was quite difficult to acquire land at the time. Sensors also require a process known as aging. These devices are left in storage for a certain period of time to stabilize the electrolytes, which requires us to secure sufficient space. That is why we needed a sizable piece of land. After Hokkaido encouraged us to set up a factory with impeccable timing, RIKEN KEIKI decided to build a total of three factory buildings gradually in Hakodate City. All of this happened more than 30 years ago. My appointment as the Executive General Manager of the Production Division basically brings me back to where I first began my career.

I was involved in many projects like this, which support business management by strengthening our financial capabilities. However, the one that I remember most is listing RIKEN KEIKI on the First Section of the Tokyo Stock Exchange. We were first publicly listed on the Second Section in 1961. After 34 years, RIKEN KEIKI finally underwent the section assignment examination in September 1995 to achieve our long standing goal of being listed on the

*1 Merged with RIKEN KEIKI in 2008; current Hakodate Factory.
*2 Current Hakodate City

PRODUCTION CENTER FULL-SCALE OPERATION STARTED.



First Section. This examination not only scrutinized our business performance but also our business management system, which required RIKEN KEIKI to strengthen its corporate governance. In fact, those reforms have led to the governance system we have today. The Tokyo Stock Exchange approved our transfer to the First Section that same year, elevating our corporate status. As the Tokyo Stock Exchange restructures its markets today, RIKEN KEIKI has satisfied the continued listing criteria for transfer to the new Prime Market.

In addition to the Tokyo Stock Exchange, RIKEN KEIKI undergoes third-party rating valuations every year to gauge its corporate transparency from external perspective. This year we have maintained the A- rating received in July 2020, praised for our stable progress moving the company in the right direction.

My recent work has primarily focused on managing RIKEN KEIKI NARA MFG. I was appointed President of this subsidiary in October 2018 to launch a project to build a new office building with a factory that we needed. Completed in December last year, the office-factory complex started operations in January 2021.

As the President of RIKEN KEIKI NARA MFG, I have valued the unity of the RIKEN KEIKI Group. Even as a RIKEN KEIKI subsidiary, we are on the same footing as our competitors as a contractor. However, to strengthen coordination as a Group, we must differentiate ourselves from other companies. Our interests as a RIKEN KEIKI subsidiary directly align with the interests of RIKEN KEIKI, which in turn benefit our customers. This perspective drives me to focus my efforts on strengthening Group unity in various ways including human exchange.

I will be able to use the experience and knowledge I have in finance, management, and corporate governance to maximize the benefits of development and production integration as the Executive General Manager of the Production Division.

Development and Production integration to Establish a Robust Product Supply System by Enhancing Sensor Quality and Performance

—The Production Center was completed adjacent to the Development Center last year. It started full operations finally this year. This new facility took over Hakodate Factory operations and launched fully equipped with everything it needs as a key sensor production facility. Could you please tell us about what led to integrating development and production, the benefits of this integration, and your future goals?

The Production Center was built on the same campus as the Development Center in Kasukabe City. There are three main reasons to integrate development and production.

First, a physically close proximity between development and production is better for developing and producing more advanced products with higher quality and greater performance. The lifeblood of RIKEN KENKI is sensors. Simply assembling these products according to the design drawings does not necessarily provide the intended quality. There are a wide range of conditions that determine the product quality, such as the aging process that I mentioned earlier. That is because the chemicals used in sensors impact the quality. Let's say the quality inspection after production discovers an issue or a problem pops up out in the real world. It is difficult for the Production Division to identify the cause by itself. The designers and engineers who developed the product need to run an analysis. If the development and production facilities are located far from one another, solving a problem like this takes time. It may also affect the product supply.

The second reason has to do with more sophisticated and complex customer needs. Gas detectors are a niche high-mix low-volume production market with a diverse range of products, such as the type or concentration of gases. The requirements for products in this market are becoming even stricter. For example, newly synthesized gases that do not exist in nature may be used in manufacturing processes in some industries. Our sensors must accommodate the need to detect these new gases. This pursuit means that we have to not only fully understand unique sensor properties but also combine circuits and software according to those traits. In my opinion, a system of coordination with no delay between development and production departments is essential. Cooperation is the only way that we can satisfy more sophisticated customer needs, such as the new gas requirements or product adjustments and customization.

The third reason has to do with properly executing our BCP*3. When a natural disaster hits a production facility, it takes a long time to recover operations as we saw during the Great East Japan Earthquake and other natural disasters in the past. Depending on the severity of the situation, we may not be able to sustain business continuity. RIKEN KEIKI has a duty to provide a stable supply of products to our customers and the market with no interruption as a company advocating

safety and security. Our goal is to establish a system to maintain a robust product supply system able to quickly address customer needs under any circumstances, even if unexpected. A sturdy building is necessary to protect sensor products, which are precision devices. The Production Center has a base isolation system to dampen seismic vibrations. This secures all of the production equipment inside the building from moving.

As sensor technology becomes smaller while seeking even higher performance, production departments must have stronger links with development departments not only during production but also from the design and setup stages of production equipment. By establishing a site that integrates development and production, we can overcome the broad range of issues that we have faced up until now. Scaling up development and production equipment enables us to accelerate the development, production, and supply of new products that adapt to sophisticated customer needs. I believe we can fulfill our duty more soundly as a leading manufacturer of gas detectors and alarms in Japan by providing an even higher level of safety and security.

Pursuing Sustainability in Products and Production Facilities as well as by Maintaining the Supply Chain

—The expectations and requirements for sustainable management from all stakeholders are higher than ever before. This includes joint public and private initiatives carried out by government agencies and industry to achieve the 17 SDGs by 2030, new environmental, social, and governance (ESG) criteria for corporate investments, and the long-term industry targets toward carbon neutrality. Could you please tell us about the role of the Production Center and future goals to succeed in ideal sustainable management at RIKEN KEIKI?

Our Sustainability Policy consists of three sustainability activities: sustainability to support industrial infrastructure, sustainability in development and production of our products, and sustainability as a good corporate citizen. Development and production departments have a particularly close relationship with the second activity to achieve sustainability in development and production of our products. The two aspects in this part of sustainability are business activities that generate products and services as well as the supply chain.

The integration of the Production Center as part of the Development Center encourages greater sustainability in development and production of our products. For instance, we have reduced conventional distribution costs and carbon dioxide emissions by directly linking our sensor and product factories. We adopted 100% renewable energy*4 at both the Development and Production Centers in July. This has essentially eliminated carbon dioxide emissions from our development and production site.

The building also employs a wide range of ecological ingenuity, including the air-conditioning system. RIKEN KEIKI has also transitioned to eco-friendly packing and packaging materials and methods. We are taking care to reduce our environmental impact beyond production as well by enhancing efficiency in product distribution from bundled shipments to no empty trucks. RIKEN KEIKI is also striving to reduce waste from the perspective of product sustainability, such as promoting recycling of some sensors collected during regular replacements.

Another field is our supply chain. We have been strengthening the supply of both complete products and sensors for about two years since the start of the coronavirus pandemic. These measures take care to ensure no interruption in the product supply not only in the domestic market but also to distributors overseas. In this respect, I feel the pandemic has transformed the past views on inventory as a disadvantage, which was primarily driven by the Just-in-Time inventory system. Inventory is not always a disadvantage, especially now when transport, customs, and other distribution processes take so much time. If anything, inventory can be an asset. A reliable supply with enough stock to encourage stable transactions with business partners is the ideal supply chain in the era trying to tackle the coronavirus pandemic in promoting co-existence and co-prosperity. In this way, corporate leaders at the top of industry need to put into practice a BCP through measures that include maintaining a standard of inventory that provides a sufficient buffer. This is how I think we can contribute to sustainable management which will build a sustainable society.

(Interview: August 4, 2021)

*3 A Business Continuity Plan (BCP) outlines policies in advance to ensure the continuity of important business operations during crisis situations, such as disasters, system failures, or terrorism.
*4 The 100% renewable energy power supply, including electricity under Japan's FIT system, with non-fossil fuel energy certificates with tracking information combined.

Special Feature-2:

MISSION:INVISIBLE as a GROUP

RIKEN KEIKI NARA MFG. Co., Ltd. New Office and Factory Overview

50 Years in Business as of Next Year: Leading-edge Equipment at the New Office and Factory to Help Establish a Sustainable Society

Executive Managing Director and
Factory Manager of RIKEN KEIKI NARA MFG. Co., Ltd.
Hiroyasu Yoshikawa

Exterior View of RIKEN KEIKI NARA MFG

RIKEN KEIKI NARA MFG was established as a subsidiary in 1972 by the Nara Factory separating from RIKEN KEIKI. RIKEN KEIKI NARA MFG will celebrate its 50th anniversary next year. As the only domestic manufacturing subsidiary of the RIKEN KEIKI Group, RIKEN KEIKI NARA MFG develops and produces high-quality detection and measurement instruments as well as sensors. Its lineup not only includes gas detectors and alarms but also automatic press monitoring devices as a major manufacturing company in Japan. A new office and factory building were completed in December last year. RIKEN KEIKI NARA MFG started operations in this new business environment in January 2021.
In this special feature, we visited the complex in Sakurai City, Nara to talk with Executive Managing Director and Factory Manager Hiroyasu Yoshikawa.

Executive Managing Director and Factory Manager Hiroyasu Yoshikawa (Right) and Administration Section Manager Masato Oshita

Unique Product Development Capitalizing on Sensor Technology: Fulfilling the Role as a RIKEN KEIKI Satellite Factory

—Thank you so much for taking time out of your busy schedules to talk with us today.
RIKEN KEIKI NARA MFG plays a vital role in supporting the RIKEN KEIKI Group as its subsidiary. In addition to manufacturing and selling automatic press monitoring and measurement devices, your subsidiary also develops and manufactures RIKEN KEIKI gas detectors and alarms as well as jigs and other tools. Could you please give us an overview and strengths of RIKEN KEIKI NARA MFG, such as your history and current product lineup as well as tell us about its role as a RIKEN KEIKI Group company?

Based on the Nara Factory which started operation in 1970, RIKEN KEIKI NARA MFG was separated as a subsidiary company in 1972. At the time, RIKEN KEIKI NARA MFG was primarily an outsourcing production company manufacturing industrial equipment for major appliance manufacturers, such as word processors, fax machines, point-of-sales systems. To solidify future prospects, we transitioned business to the development, manufacture and sale of our own unique products. We started developing press monitoring devices by using our expertise in sensor technology. In 1981, RIKEN KEIKI NARA MFG succeeded in developing and began sales of the NEW SELBER I (slug float detector) as its first product. Since then, the company has been refining its automated monitoring technology to prevent production loss by providing stable operation of presses while mitigating problems. We also enhanced our lineup of press monitoring and measurement devices. Today, as a major manufacturer in Japan, RIKEN KEIKI NARA MFG has earned the trust and regular orders from a diverse range of customers, including automotive manufactures as well as small- and medium- size manufacturing sites. Moreover, we have been expanding our sales channels overseas over the last few years, shipping products to India, China, Southeast Asia, and various other countries.

The same advanced sensor technologies as RIKEN KEIKI are key to our own products. Unlike gas detectors and alarms, while products are manufactured at high speeds, our products need to detect minute deformities within several microns to minimize the number of defective products. We also hope to reduce wastefulness in both materials and costs. Higher press productivity and quality prevents operational losses, production losses caused by damage to molds, delivery delays and production stoppage due to other troubles. By ensuring safety and security on production sites, we contribute to sustainability that supports industrial infrastructure. I think this demonstrates our synergy with the RIKEN KEIKI Group and its foundation in sensor technologies.

At the same time, we also act as an important RIKEN KEIKI satellite factory which handles some of the development and production of manufacturing equipment. One of our major duties is to manufacture RIKEN KEIKI's GX-3R and other state-of-the-art portable gas detector products. The sensors for these products are produced at the RIKEN KEIKI Production Center. RIKEN KEIKI NARA MFG manufactures the printed circuit boards attached to these sensors and is in charge of every process until realizing the final product.

RIKEN KEIKI NARA MFG also functions as one RIKEN KEIKI warehouse and delivery center. In the past, for instance, we used to send every portable gas detector and other final products manufactured at our subsidiary to RIKEN KEIKI. Shipments directly from the warehouse setup on our campus to ordering destinations drastically reduces the time and costs to transport these products and contributes to better inventory management and distribution for RIKEN KEIKI. Our company also provides our own original services within the Group. This includes maintenance of portable gas detectors mainly in West Japan, the production of ampules filled with trace gases for product testing, and the manufacture of portable low-pressure cylinders.

Mechanical Shaft Structure of the New Office Building: A New Environment Contributing to Group Growth

—Completed in December last year, the updated office-factory complex started operations as new infrastructure in January 2021. Would you please share with us what led to the construction as well as provide an overview and tell us about the advantages of this new environment? Could you also tell us about what all of your employees think and how customers have responded as well as their expectations for this new facility?

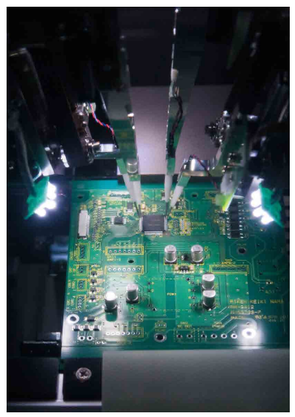
Our old facility had become quite small as an office and factory as business and personnel has grown. More specifically, RIKEN KEIKI NARA MFG had discovered the factory built when the company was established no longer satisfied current seismic assessment standards. Although we considered reinforcing the building at first, adding bracing frames inside the office and factory would have adversely affected operations. On the other hand, our manufacturing operations would completely stop if we simply demolished and rebuilt the entire facility. For a short time, we even

considered relocating the company somewhere nearby. Luckily, the timing worked out and RIKEN KEIKI NARA MFG was able to purchase a plot of land adjacent to our current site. This made it possible for us to build the new office building.

The plot of land where the new office was built had originally been a parking lot. By choosing a parking lot for the new land we purchased, RIKEN KEIKI NARA MFG was able to rebuild the complex without stopping its manufacturing lines.

The new office complex adopts the same mechanical shaft structure as the RIKEN KEIKI Development Center. This provides an extremely excellent factory environment due to spacious configuration and high-level of flexibility. The amount of floor area increased 150%. Our former office and factory complex connected three buildings by walkways. Moving about was cumbersome, but the new building has dramatically improved mobility and drastically enhanced operational efficiency. The new complex even offers everyone a personal locker which lacked in our old campus. The new cafeteria is spacious, comfortable, and accommodating. Employees love it.

Unfortunately, we have not been able to invite many of our customers to visit the campus directly due to the coronavirus pandemic. However, citizens in Sakurai City have had an amazing reaction to the new facility. RIKEN KEIKI NARA MFG has been conducting business in the same place for about 50 years already. After erecting this new complex, the local people seem to have once again recognized RIKEN KEIKI as an organization which will continue to have roots in the local community. Our home will always be in Sakurai City. As the only domestic manufacturing subsidiary of the RIKEN KENKI Group which expands the presence widely in core domestic industries and production markets as well as in the rest of the world, RIKEN KEIKI NARA MFG will always provide safety and security with the hope of contributing to establishing a sustainable society. (Date of interview: August 6, 2021)







RK TECHNOLOGY TREND

Drastically reduce costs and space!
Equipped with advanced and ultra-compact next-generation sensors!

New Multi Gas Detector for Semiconductor Plants

MODEL GD-84D Series

- One-fourth the initial pipe and wiring costs
- One-fourth the running costs for consumables
- Less than half the installation space!

■ Introduction of a GD-84D Multi Gas Detector Equipped with the Latest Cutting-edge Sensors to Dramatically Reduce Costs

The GD-84D series capitalizes on high-performance ultra-compact next-generation sensors newly developed by RIKEN KEIKI. Semiconductor plants use a tremendous number of gas detectors. RIKEN KEIKI developed and released the GD-84D series multi gas detectors to enable each of these plants to monitor up to four different types of gases with one single unit.

Semiconductor plants use a large variety and a large volume of toxic and combustible gases as gaseous semiconductor materials. The number of gas detectors required as safety devices at these plants is increasing as the scale of modern facilities grows. This also dramatically drives up costs. As the company pioneering industrial gas detectors, RIKEN KEIKI has developed innovative gas detectors in the pursuit of total cost performance in order to respond to customer needs. The ingenuity employed significantly reduces installation and running costs.

■ High-performance Ultra-compact Next-generation Sensors with approx. 10% Less Volume than Conventional Sensors Bring the Capabilities of Four Gas Detectors into a Single Unit

The GD-84D series leverages the high-performance next-generation F sensors, which have drastically miniaturized conventional sensors (10% less volume). Four of these amazingly small sensors can be mounted on a single device. Only one device with the size of two conventional single-component detectors offers the gas detection capabilities of up to four different devices. These capabilities effectively cut the costs of electric and communication wiring as well as sampling piping during installation by 75%. Miniaturization of the detector itself also reduces the installation space for the gas detector rack, and other accessories by 50%.

■ Built-in Smart Self Diagnostic Functions Plus High-performance Pumps Improve Reliability

The GD-84D series strengthens self-diagnostic functions using built-in next-generation high-performance F sensors. The self-diagnostics enhance reliability by providing a plethora of diagnostic information. This series of gas detectors offers expiration warnings, degradation warnings from sensor output errors to liquid spoilage detection, lifespan assessments, and warning vitality (span reserve). The extensive lineup of sensors packs 67 types of combustible gas sensors on top of the main 18 toxic gas sensors. The series also ensures an even higher level of interference protection than conventional products.

The adoption of a high-performance pump RP-80 reduces vibrations and noise, handles pulsation, and offers redundancy, and a smaller environmental footprint.

■ New Ethernet Connection to Update Firmware: Configure a Total Gas Monitoring System

The GD-84D series takes things a step further with Power over Ethernet (PoE). The new update can add new functions, improve existing features, and upgrade the firmware in other ways without a technician servicing systems on-site.

The PoE Hub can supply power to gas detectors using a single LAN cable and can high-level output the statuses of gas detectors through digital communication. The GD-84D series is the perfect product to configure a total factory gas monitoring system. Real-time around-the-clock toxic and combustible gas detection enhances safety and disaster management in semiconductor plants.

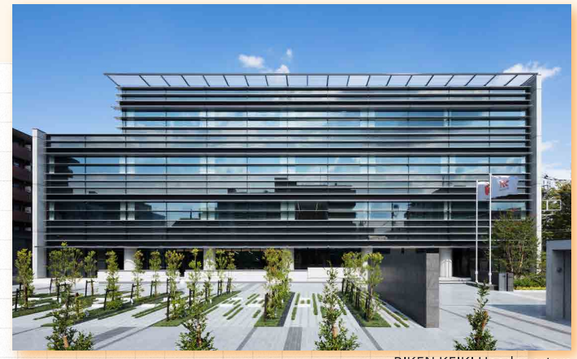
SUSTAINABLE DEVELOPMENT GOALS

The Sustainable Development Goals (SDGs) were adopted at the United Nations Summit held in September 2015. These 17 goals and 169 targets included in the 2030 Agenda for Sustainable Development lay the foundation as an international index in the hope of a better sustainable world by 2030.

Our mission is to protect sacred human life and precious property from the invisible hazards posed by gases.
To fulfill this duty, RIKEN KEIKI will develop and manufacture the most advanced gas detectors and alarms to bring safe working environments around the world.
Our businesses will help achieve the Sustainable Development Goals above.

CSR REPORT

Adoption of Renewable Energy Toward a Decarbonized Society


RIKEN KEIKI Headquarters


Development Center


Production Center

The modern world is suffering from more frequent and severe natural disasters. As large-scale climate change continues warming the Earth, the Intergovernmental Panel on Climate Change (IPCC)*1 called for significant reduction in carbon dioxide emissions in 2018 as the greenhouse gas causing this climate change worldwide. Governments reacted by quickly announcing multiple targets for specific initiatives to establish a decarbonized society.

Japan pledged to reduce greenhouse gas emissions to net zero by 2050, that is, carbon neutral by 2050*2, and aims to achieve a decarbonized society at the extraordinary diet session held October 26, 2020.

Japan is currently responsible for emitting more than 1.2 billion tons of greenhouse gases annually. To achieve the lofty target of practically zero emissions by 2050, industry as a whole is already executing various initiatives under the guidance of the Ministry of the Environment and other government agencies.

In April 2021, RIKEN KEIKI transitioned to 100% renewable energy*3 for the power used at its headquarters in Itabashi-Ku, Tokyo. This new power supply is available for use by RE100*4 member companies. By shifting to renewable energy for the power used at our headquarters building, we will practically eliminate all of our roughly 220 tons of annual carbon dioxide emissions.

In July of this year, RIKEN KEIKI also began transitioning its Development and Production Centers in Kasukabe City, Saitama to 100% renewable energy. This project aims to achieve company-wide carbon neutrality.

RIKEN KEIKI will continue its efforts to help establish a decarbonized society. This includes not only its shift to renewable energy but also a wide variety of energy-saving initiatives.

The use of 100% renewable energy contributes to the two Sustainable Development Goals on the left.

*1 The IPCC was established in 1988 for the purpose of sharing the latest research results on global warming. The organization has members in 195 countries and regions around the world.
*2 "Net zero emissions" refers to achieving an overall balance between carbon dioxide and other greenhouse gas emissions produced and taken out of the atmosphere.
*3 The 100% renewable energy power supply, including electricity under Japan's FIT system, with non-fossil fuel energy certificates with tracking information combined.
*4 The RE100 is a global initiative bringing together companies committed to 100% renewable electricity.

–Vol.4–
REPUBLIC OF CHINA (TAIWAN)

Overseas Representative Report

RK GLOBAL FRONTLINE

Tainan Headquarters

Taichung Sales Office

Taipei Sales Office

台灣理研計器股份有限公司

RIKEN KEIKI TAIWAN Co., Ltd.

RIKEN KEIKI TAIWAN Co., Ltd. (RKT) was established in 1985 as EPI SYSTEM Co., Ltd. Current President and Executive Officer Shinichi Adachi joined RIKEN KEIKI in 1984. He has had a long career in the Global Sales Department in roles including General Manager. RKT has been in business for 36 years. The company launched with its headquarters in Kaohsiung, which was the heart of Taiwan's petrochemical industry. Since then, the economy of Taiwan has shifted to semiconductor and other high-tech industries. In 2002, RKT built a new head office building in the largest high-tech science park in Taiwan in the Shanhua District of Tainan City. Today, this subsidiary has three locations to handle business throughout the entire of Taiwan—the Tainan Headquarters, the Taichung Sales and Service Office, and the Taipei Sales Office. This is the fourth article in the RK GLOBAL FRONTLINE series. Taiwan has a deep bond with Japan from its history to its national character. This report analyzes the booming high-tech Asian markets in Taiwan, with particular focus on semiconductors.

[Local Reporter]
Shinichi Adachi
President, RIKEN KEIKI TAIWAN Co., Ltd.

Higher Annual Investments in Semiconductor Fabrication Plants:Boldly Taking on Environment, Public, and New Market Sectors

RKT presently has 52 employees throughout its national Taiwan network in Tainan, Taichung, and Taipei. The economy in Taiwan has drastically shifted into the high-tech sector, which consists of semiconductor, liquid crystal, microcomputer, and LED/EMS electronics industry assembly. All employees tackle the high-tech sector together with many distributors. Investments of semiconductor fabrication plants in particular are increasing each year, which results in fiercer competition between gas detector manufacturers. In this business climate, RKT is pursing greater customer satisfaction centered upon product reliability and integrated sales and servicing. Our sensible sales capabilities have earned a high-level of customer trust and understanding as well as continued sales growth. At the same time, RKT is also proactively engaging in markets outside the high-tech sector and conventional petrochemical industry. The Taipei Sales Office is spearheading our efforts in the environmental, public and new market sectors.

Goal of Establishing a Model for Global RIKEN KEIKI Network

EPI SYSTEM Co., Ltd. became a wholly owned overseas subsidiary of RIKEN KEIKI in 2008. This company then changed its name to RIKEN KEIKI TAIWAN (RKT) in 2016. Thanks to the long history of an organization established in 1985, RKT quickly adopted human resource and management programs from core ERP systems to mainstay human resource and management-led policies. Our constant enhancements and reforms to corporate governance have worked to make RKT a case model for overseas RIKEN KEIKI subsidiaries.

Although RKT does face complex political issues, Taiwan has strong economic links and a close relationship in many industries with mainland China. This is why RKT always coordinates with RIKEN KEIKI COMMERCIAL (SHANGHAI) Co., Ltd. (RKC) to exchange information and respond to mutual customers. We work to not only maintain but also expand this global network.

Ongoing Trilateral Communication in the Coronavirus Pandemic: Doing what we should do against the background of the mountains higher than Mt. Fuji.

The Taiwanese government has done a relatively good job at mitigating the spread of the coronavirus. However, the country still has harsh conditions with people contracting the virus on an almost daily basis. Constant trilateral communication between Tainan, Taichung, and Taipei is essential during this crisis. Therefore, the RKT offices stay in constant touch using online video conferencing tools. In a way, these three locations have really become one office. For example, the Taipei Sales Office is always listening to discussions happening at the Tainan Headquarters and can ask questions right there and then. RKT has also established telework criteria. When Taiwan declares a state of emergency, our offices do as much administrative work from home as possible.

The Northern Tropic passes right through the center of Taiwan. Silhouetted by a mountain range rising above 3,900 meters—higher than Mt. Fuji—the elevation provides a warm tropical and subtropical climate where people can enjoy the landscape as the four seasons change. Therein, the high-tech sector of Taiwan industry will continue its trajectory and surely further develop the market. There is still much for us to do in Taiwan. I laugh at how strange it is that the work we do each day actually creates more work for us to do in the future.
RKT will continue making every effort on a daily basis with full force to pioneer industrial Asian markets.

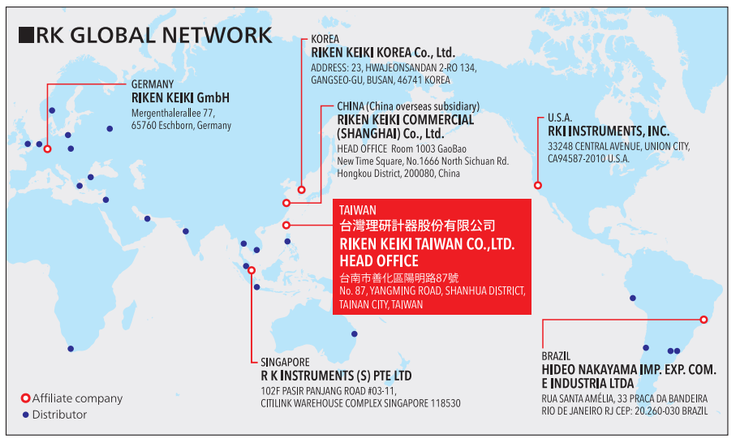
台灣理研計器股份有限公司
3 BASES & 3 MARKETS

Tainan	Taichung	Taipei
High-tech Sector	Petrochemical Sector	Environment, Public, and New Market Sectors

COFFEE BREAK

Big Lunar New Year Party

RKT holds a big party for 100 employees and their family members once a year. This is a big event held to celebrate the Lunar New Year in Greater China. All of our employees as well as their children and families look forward to the festivities. As shown in the pictures, the party has gifts and attractions for the children who come to enjoy alongside delicious Chinese cuisine. Adults and children alike have fun letting the time pass without a care in the world.

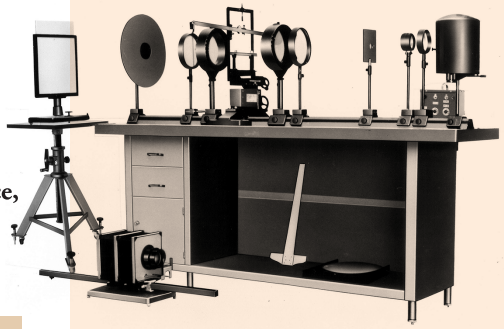


Tracing Back the History by the Products

RIKEN KEIKI's History #4 as Told by Its Products

1959

The Photo-elasticity Apparatus; Japan's First Internal Stress Measurement Device, handed over from RIKEN was Finally Completed.



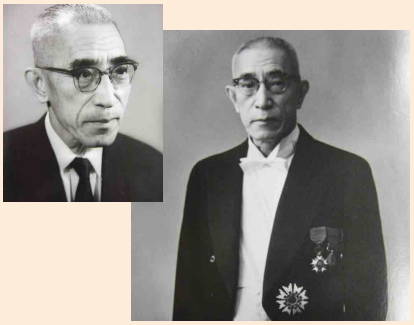
RIKEN KEIKI completes the photo-elasticity apparatus in 1959 by continuing RIKEN research.

The Institute of Physical and Chemical Research (RIKEN) and RIKEN KEIKI have had a familial relationship of sorts throughout its history, especially in terms of RIKEN KEIKI's founding. One product that symbolizes these close ties is the photo-elasticity apparatus that we find as we trace back the history by the products. This apparatus measures the stress applied to each section of a structure, such as a building. The RIKEN Tsuji Laboratory started the research into this product before RIKEN KEIKI took over and completed its commercialization.
The photo-elasticity apparatus was a revolutionary product as the first of its kind in Japan. As oil took the lead over coal in the energy revolution during the early 1960s, the product even covered the loss in gas indicator sales which relied on the coal industry. It also strengthened our corporate management at that time.

Second President Jiro Tsuji Resigns from RIKEN to Focus on RIKEN KEIKI Management

Second RIKEN KEIKI President Jiro Tsuji spent many years during his 33-year tenure at RIKEN researching the photo-elasticity apparatus. After his resignation from RIKEN in 1956, Jiro Tsuji dedicated himself to the management of RIKEN KEIKI as President, continuing all out efforts to research and enhance this apparatus.

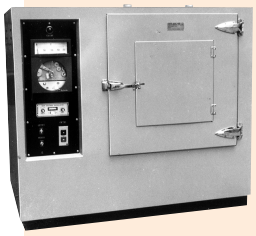
As RIKEN's senior researcher, President Tsuji had already made a name for himself worldwide for many groundbreaking research projects. He was also well known in industrial circles thanks to serving as chairman on various academic societies and as the first commissioner of the National Public Safety Commission. His personal relationships brought many renowned physicists and electrical engineers to RIKEN KEIKI to provide the most advanced training to its engineers. The RIKEN KEIKI technology development department took on the shape of a research laboratory due to the tremendous human exchanges with RIKEN. The astounding motivation of the engineers during this era solidified the foundation of RIKEN KEKI'S business model emphasizing research and technology development. The completion of the photo-elasticity apparatus as a product can be seen as the long-awaited benefits of such an atmosphere.



Second President Jiro Tsuji (1896 – 1968)
Jiro Tsuji established the fringe pattern method for photo-elasticity testing during his time as RIKEN's senior researcher. He led the commercialization of the photo-elasticity apparatus as a product at RIKEN KEIKI.
Jiro Tsuji also served as the first commissioner of the National Public Safety Commission as well as chairman of The Japan Society of Mechanical Engineers, The Japan Federation of Engineering Societies, and various other organizations.

Photo-elasticity Apparatuses Become the Standard in Universities Throughout Japan

The photo-elasticity apparatus captures and measures the stress applied to each part of a structure, such as buildings, in a picture. This allows engineers to identify and reflect areas requiring reinforcement or other work in their designs. Nonetheless, only a few of these apparatus were sold each year due to the initially high price tag. However, the period of high economic growth started a building rush. Engineering universities looking to introduce photo-elasticity apparatuses for research and testing gradually began to make inquiries. At first, RIKEN KEIKI received most of its orders for departments of civil engineering, architecture, and machinery from universities in Tokyo. With the start of national subsidies though, a flood of new orders came from Universities throughout Japan. Everyone working at RIKEN KEIKI was proud to have this product used in education and research. The trend of deliveries continued until the early 1970s.



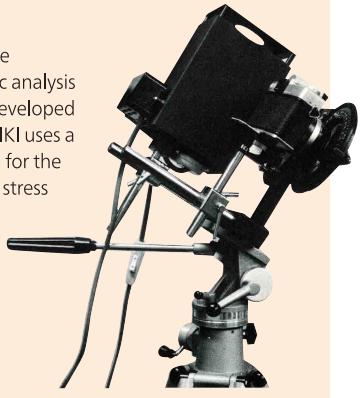
The stress freezing apparatus developed by RIKEN KEIKI provides a three-dimensional elastic stress analysis.

Stress Analysis Outsourcing for Dam, Bridge, and Ikebukuro Subway Construction

After the introduction of photo-elasticity apparatus, orders expanded from universities and various research institutes to shipbuilders, steel, electric, chemical and construction companies, as well as civil engineering design firms. This soon brought with requests to contract RIKEN KEIKI for large-scale testing and analysis. One type of testing contract was for the construction of dams. These tests analyzed and reported where the largest stress was applied when large amounts of water hit the dam, as well as where and how much to reinforce those sections.

RIKEN KEIKI also cooperated in tests for train manufacturing, bridge construction, and automotive designs. The largest of these projects was the subway construction for Ikebukuro station, a major railway station located in Tokyo. RIKEN KEIKI analyzed where buildings and other structures above ground would apply stress to a subway tunnel dug underground to determine the necessary reinforcement and thickness of columns. This helped in the actual design.

This project not only took a lot of time for testing and analysis but also demanded the highest level of precision and accuracy because it related to human life. In an era thriving with a building rush, RIKEN KEIKI technology played a role in building the infrastructure of Japan. This is one of the company's proudest moments over its more than 80-year history.



The reflective elasto-plastic analysis apparatus developed by RIKEN KEIKI uses a film method for the same elastic stress analysis.

The Japan Analytical Instruments Manufacturers' Association (JAIMA) selected and published this Photo-elasticity Apparatus Heritage Certification in the 5th Heritage of Analytical and Scientific Instruments certification program in 2016.
Photo provided by the Japan Analytical Instruments Manufacturers' Association

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Creating safe working environments

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