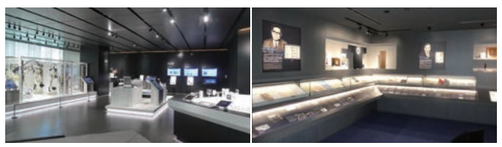
DAIHEN

DAIHEN REPORT 2022

Corporate data

Company name	**DAIHEN Corporation**
Date established	December 1, 1919
Capital	¥10,596 million
Sales	¥160,618 million (March 2022, consolidated)
Employees	3,783 (As of March 2022, consolidated)
Business	Manufacture, sale and servicing of power equipment, welding machines, industrial robots, RF generators for semiconductor manufacturing, EV charging systems, etc.
Head office location	2-1-11 Tagawa, Yodogawa-ku, Osaka 532-8512 Japan Tel: +81-6-6301-1212
Business offices and plants	Juso Business Office (Osaka) Rokko Business Office (Kobe) Mie Business Office (Taki-cho, Mie) Kanehira Plant (Osaka) Chitose Plant (Chitose, Hokkaido)
Regional offices	Hokkaido Regional Office, Tohoku Regional Office, Tokyo Regional Office, Chubu Regional Office, Chugoku Regional Office, Kyushu Regional Office
Website	https://www.daihen.co.jp

Head Office (Juso Business Office)


Showrooms (1F Head Office)

Our Head Office Building is registered with Osaka City as a Tsunami Evacuation Building.

Executive officers (As of June 28, 2022)

Directors and operating officers

Chairman	Tetsuya Tajiri
President and Chief Executive Officer	Shoichiro Minomo
Executive Vice President and Member of the Board	Kazuo Kamo
Executive Vice President and Member of the Board	Keiki Morimoto
Senior Vice President and Member of the Board	Haruhisa Kimura
Senior Vice President and Member of the Board	Shingo Wada
Member of the Board	Keiichi Ando
Member of the Board	Emiko Magoshi
Member of the Board	Yasufumi Fujiwara

Auditors

Standing Auditor	Tatsuya Iba
Standing Auditor	Keitaro Takahashi
Auditor	Haruo Urata
Auditor	Masashi Yoshida
Auditor	Hiroyuki Shime

Operating officers / Fellows

Senior Vice President	Kentaro Kaneko	Vice President	Tong Hongjun
Senior Vice President	Ichiro Yamano	Vice President	Hideki Imura
Senior Vice President	Tomoyuki Ueyama	Vice President	Masana Morioka
Senior Vice President	Hiroaki Oichi	Vice President	Norbert Kleinendonk
Vice President	Yasuhiro Nishimori	Vice President	Kazuki Kondo
Vice President	Ryohei Tanaka	Vice President	Shigeo Ozawa
Vice President	Toshiyuki Arai	Fellow	Yuji Yoshizako
Vice President	Tadashi Kuriyama		
Vice President	Yasuhiko Fujitomi		

Contents

Editorial policy

We publish this report to let all of our stakeholders know the kind of business activities we are conducting in the DAIHEN Group and, by doing so, build trust between us. A lot of effort has gone into editing the layout so that people of all walks of life will find the content easy to read and will gain a proper understanding of what we do.

Going forward, we will continue to upgrade the content of the report by adding information that our stakeholders expect and want.

[Opinions and requests are welcome!]

Your opinions and requests are great sources of information that help us to improve not only this report but also our business activities. Let us know what you think.
DAIHEN Website >> Contact Us >> Other inquiries >> Inquiry form

Reporting period

This report covers fiscal year 2021 (April 1, 2021 to March 31, 2022). This report also contains some information from before fiscal 2020 and after 2022.

Scope of organizations covered

In principle, this report spans the initiatives of the DAIHEN Group, which comprises DAIHEN Corporation and its consolidated subsidiaries. The environmental report contained herein presents the environmental initiatives of our Group plants — in Tottori, Oita, Matsudo, Eniwa, Hirosaki, and Kagawa — that are participating in the environmental management system (EMS) of DAIHEN Corporation.

Reference guidelines

- *Guidelines 2013* of the Global Reporting Initiative (GRI)
- *Environmental Accounting Guidelines 2005*, Ministry of the Environment, Japan
- *Environmental Reporting Guidelines 2018*, Ministry of the Environment, Japan
- *JIS Z 26000*, Japanese Standards Association

Next issue

The next issue of this report is scheduled for release in September 2023.

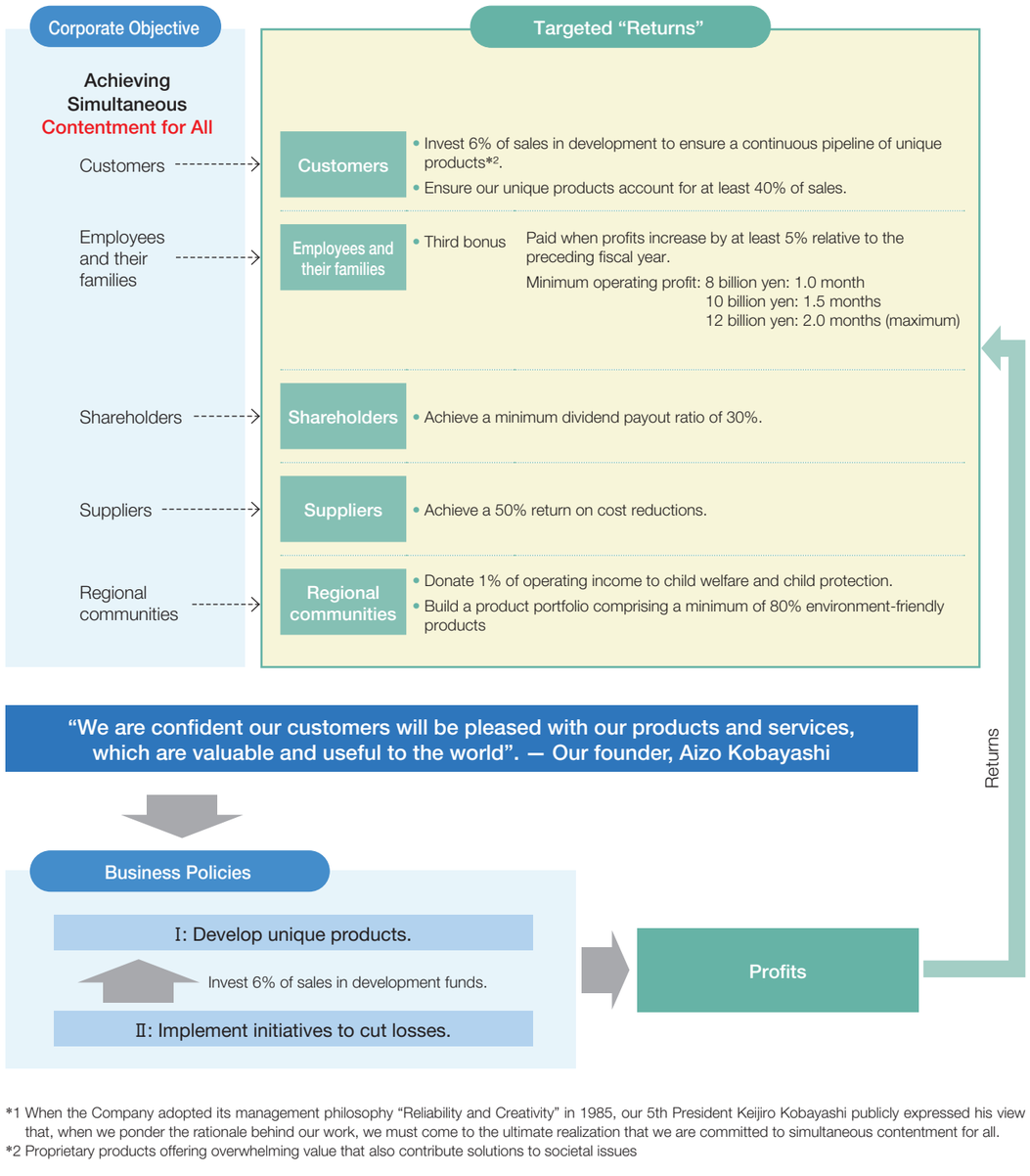
Disclaimer

This report includes our plans and prospects as of the date of publication; projections based on management plans and management policies; and past and current data on the DAIHEN Group. The reader is advised that these projections are assumptions or judgments based on the best information available at the time, and the possibility exists that future business performance may differ due to changes in various conditions, unforeseen results, and changes to forecast business activities.

The DAIHEN Group is committed to achieving “simultaneous contentment for all”*1 through appropriate return of profits to stakeholders.

The DAIHEN Group has adopted the goal of “simultaneous contentment for all”, which demonstrates our commitment to the happiness of all our stakeholders — customers, employees and their families, shareholders, suppliers, and our local communities. To that end, we have clearly set specific goals — which we refer to as targeted “returns”— for each category of stakeholder. We remain intensely focused on meeting these goals.

All DAIHEN Group employees throughout the company thus understand our corporate purpose and remain dedicated to working in unison as each individual plays an essential role in realizing it.



*1 When the Company adopted its management philosophy “Reliability and Creativity” in 1985, our 5th President Keijiro Kobayashi publicly expressed his view that, when we ponder the rationale behind our work, we must come to the ultimate realization that we are committed to simultaneous contentment for all.
*2 Proprietary products offering overwhelming value that also contribute solutions to societal issues

Doing what we can to shape a sustainable world

Transitioning to an R&D-focused company that squarely confronts societal issues

Since its founding in 1919, DAIHEN has remained focused on the development of products that meet the needs of society. By developing transformers, welding machines, industrial robots, and RF generators for semiconductor manufacturing equipment, we have contributed to the advancement of the power infrastructure that forms the industrial foundation of daily life. At the same time, we are driving the evolution of the manufacturing sector around the globe.

We are now entering a new era that marks our transition to an R&D-focused company dedicated to addressing societal issues head-on. By developing energy management systems that contribute to greater use of renewable energy, we can offer our Green Solutions that contribute to the emergence of a decarbonized society. These include charging infrastructure that is indispensable to the adoption of EVs as well as our innovative joining processes that help reduce vehicle body weight. Moreover, we are developing solutions targeting labor shortages while seeking to diversify our workforce and work styles. We remain focused on these areas even as we strengthen our development of Tailored Solutions that provide the optimal approach to problem-solving. Our solutions include individually tailored robot systems that accommodate the specific circumstances of customers in the manufacturing sector. By introducing a series of products with unique market value, we are demonstrating our commitment to serving the needs of the world while ensuring customer satisfaction.

We look forward to your continued support as we pursued these future objectives.

Shoichiro Minomo
President and Chief Executive Officer

As part of our effort to contribute to the emergence of a society committed to decarbonization, we are focused on expanding sales and strengthening the development of various energy management systems (EMS). These comprise control technologies and devices that contribute to the growing introduction of renewable energy as well as the charging infrastructure that is essential to the adoption of EVs.

Developing an EMS-compatible high-capacity 180-kW quick charger

In recent years, companies and local governments have been promoting EVs as a means of contributing to the emergence of a society committed to decarbonization.

In the EV charging market, the need for quick charging at high power levels is increasing in light of the shift to larger EVs such as buses, trucks, and other commercial vehicles and the increasing size of on-board storage batteries in these new vehicles. In addition, the increasing occurrence of peak power consumption (and concomitant cost increases) due to congestion at charging facilities and concentration of charging infrastructure in public facilities such as expressway service areas has presented a challenge. Clearly, a need has arisen for quick charging of multiple units as well as energy management capabilities.

The quick charger we have developed, which boasts the smallest footprint in its class, outputs up to 90 kW per plug to two EVs concurrently. What's more, this device helps to alleviate charging congestion by charging four EVs concurrently with the simple addition of two supplementary plugs. Furthermore, with the installation of Synergy Link — our proprietary autonomous distributed cooperative control technology — it is possible to minimize power peaks (and thereby control running costs) while facilitating links to a variety of facilities such as existing customer systems and renewable energy facilities such as photovoltaic power generation systems. These innovations have the potential to be very effective at expanding future decarbonization efforts.

180-kW quick charger

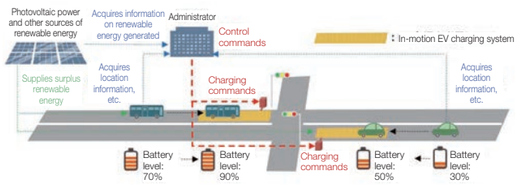
As a comprehensive manufacturer of EV charging systems that meet a wide range of EV charging needs, our addition of these product lines to our existing lines of 6 kW level 1 chargers, 30/50 kW quick chargers, and wireless charging systems is contributing to the ongoing widespread adoption of EVs.

Participating in demonstrations of wireless charging systems

We have participated in a variety of demonstration projects with the aim of deploying such systems at Expo 2025 Osaka, Kansai and offering them commercially in the future.

Demonstration of an in-motion EV charging system

In collaboration with the Kansai Electric Power Company and others, we have participated a project to develop technology for an in-motion EV charging system. This project has been adopted as a subsidized project under the Program to Develop and Promote the Commercialization of Energy Conservation Technologies to Realize a Decarbonized Society implemented by the New Energy and Industrial Technology Development Organization (NEDO). In this project, we are developing EMS technology for "smart cities" that have introduced in-motion charging systems that can charge EVs in a non-contact manner.



Overview of the demonstration project for an in-motion EV charging system

In the future, our test site at the DAIHEN Technology Institute in Oita Prefecture will conduct charging control tests using EMS technology, identify issues related to the safety of electromagnetic waves, research the installation of in-road charging systems, and promote the development of in-motion EV charging systems and EMS technologies.

Demonstration project for electric vessel

Working in collaboration with the Kansai Electric Power Company and the e5 Lab, we are jointly developing a high-capacity wireless charge/discharge system intended to promote the development and adoption of an electric vessel in the Kansai Bay area. In response to the potential adoption of this technology under Osaka Prefecture's Industry Creation Business of Renewable Energy, we conducted high-capacity wireless charge/discharge demonstration experiments for electric vessels at Hachikenyahama and at Universal City Port in Osaka City. We will utilize the data obtained from this demonstration project to build an EMS and devise the optimal charging system for electric vessels that offers higher capacity and greater speed.

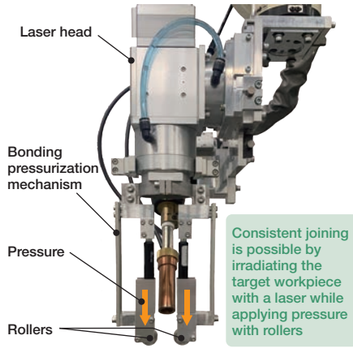
Demonstration project for an electric vessel

Demonstration project for ultra-compact electric mobility vehicles in collaboration with Osaka Prefecture

Our wireless charging system has been adopted for the charging facilities for ultra-compact electric mobility vehicles used by staff members of the Osaka Prefectural Government. Through this demonstration project, we can identify operational issues related to wireless charging systems. This will further enhance their functions in the runup to their future widespread deployment in the marketplace.

Wireless charging system for ultra-compact electric mobility vehicles

Developing technologies for joining dissimilar materials (resin and metal) to meet the demand for lighter EV bodies



New prototype of a laser head and mechanism for applying pressure to workpieces

We have developed technologies for joining resin and metal to meet the increasing demand for lighter EVs made of multiple materials, which are becoming more widespread. We are focused on commercializing this bonding technology in fiscal 2023.

In recent years, automakers have been working to reduce the weight of EV bodies in order to extend the cruising range of these vehicles. The use of lightweight resin and metals such as ultra-high-tensile steel and aluminum is increasing. In particular, the use of resins with a low specific gravity is expected to double from the current level by 2030, and the scope of application is expected to expand to include hoods, doors, roofs, and other body components.

The technology we have developed for joining dissimilar materials employs lasers, which in one fell swoop solves the problems of processing labor and costs that have plagued conventional joining methods employing adhesives, rivets, and other such mechanical fastening methods. In addition to accommodating general bonding of resins and metals, stable wire-welding is possible not only for glass-fiber-reinforced polypropylene (PP) and glass-fiber-reinforced polyphenylene sulfide (PPS), which are considered difficult-to-join materials, but also for ultra-high tensile strength steels. This approach now provides sufficient strength to fracture the resin base material at a level that can be put to practical use.

Developing an optimal welding system offering the high-quality joining required for EVs

In recent years, automakers have been increasing their use of ultra-high tensile strength steel and aluminum to reduce the weight of EV bodies.

However, the welding and joining of these materials present challenges. Ultra-high tensile strength steels are quite hard, making them difficult to process, so yields decline due to variations in processing accuracy. Moreover, aluminum is prone to melt-off and joint distortion because it readily transmits heat.

In response to this situation, we have developed the Synchro-feed Evolution. This innovation is resistant to variations in machining accuracy, as it provides a wide and flat welding seam. It also helps to prevent melt-off at the weld point by allowing for careful control of heat input.

Going forward, we will continue to employ the world's most advanced technology to the full. We have acquired this expertise in an effort to contribute to the high-quality joining of diverse materials as required by the shift to EVs.

Synchro-feed Evolution

For more details, visit our website https://www.daihen-robot.com/items/synchro

Column

Production equipment incorporating our laser-arc hybrid welding system is recognized with the Technology and Development Award from Toyota Motor Corporation

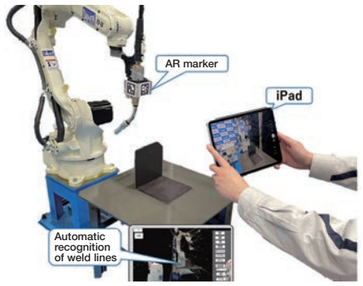
Our recent innovation was recognized with the 2021 Technology and Development Award from Toyota Motor Corporation. This award is presented to suppliers who have made significant advances in using the latest technology to improve the appeal of the company's products.

The company's production facilities equipped with our laser-arc hybrid welding system earned high praise for their contribution to efforts to significantly reduce the weight of vehicle bodies, thereby improving productivity, reducing costs, and saving space.

We will continue to refine our world-class joining technology in order to overcome the various challenges manufacturers face today.

We seek to provide optimal solutions to the challenges faced by those employed in a wide range of manufacturing positions. We are devising solutions to the labor shortage and other societal challenges, liberating people from dirty, difficult, and dangerous tasks, and adopting varied work styles for an increasingly diverse workforce. As well, we are developing equipment and systems that contribute to automation in confined spaces, reducing the burdens of facility management, and addressing the shortage of instructional workers.

Developing a tablet-based teaching-less programming system for industrial robots



Teaching a robot with a tablet-based teaching-less programming system

We have developed a tablet-based teaching-less programming system that can be used to easily generate programs for robot operation.

Industrial robots are not suitable for high-mix low-volume production situations, as a complex teaching program must be prepared for the robot for each type of product being manufactured. Various systems have been considered to simplify the teaching process. However, the cost of this task increases even further when expensive laser sensors are employed, and specialized and complicated adjustment work is required to improve the accuracy of sensor measurements. These issues have presented barriers to the introduction of robots in some production environments.

In response to this situation, we have developed a tablet-based teaching-less programming system that enables easy program generation by means of image manipulation on an iPad*. Teaching is performed simply by capturing images with the camera and using them to indicate the movement of the robot. Because teaching is so easy, robots can easily be introduced in small and medium-sized factories and other production plants that produce a wide variety of products in small quantities. This innovation enables robots to be used almost immediately to automate production in such scenarios.

*iPad is a trademark of Apple Inc.

This product earned the Main Prize at the 65th Nikkan Kogyo Shimbun's Best 10 New Product Awards in 2022.

Developing autonomous carriers suitable for a variety of transportation scenarios

We have developed a line of autonomous transport vehicles that contribute to the automation of in-factory transport.

Against the backdrop of a serious labor shortages at many manufacturing plants, a growing need has arisen to automate not only the manufacturing process but also the in-plant logistics for which AGV/AGF/AMR* units have been developed. AMRs in particular are attracting attention, as their routes can be easily modified. Many conventional AMRs have specifications adopted for specific transport applications, and their scope of automation is limited. Due to restrictions on the driving method, they can be difficult to use in the dead ends and along the narrow passages that are commonly found in manufacturing plants.

In addition to supporting a wide range of transported items and transportation scenarios, the autonomous transport trolleys we have developed can accommodate narrow aisles while avoiding obstacles. With the industry's first product line featuring three models specialized for carrier, towing, and forklift operations, we can provide units to accommodate various transportation scenarios without limiting the mode of transportation.

*AGV: Automated Guided Vehicle, a trolley that travels along a route delineated with magnetic tape or the like.
AGF: Automated Guided Forklift, an unmanned forklift that operates on the same principle as an AGV.
AMR: Autonomous Mobile Robot, a trolley that runs without a guide by determining its own position by means of a laser scanner or the like.

[Carrier model]
Pallets loaded with items for transport as well as processed metal products can be placed on the platform of the main unit and transported.

[Towing model]
This model transports items by towing a basket trolley or the like loaded with items to be transported.

[Forklift model]
This model is capable of lifting and transporting packages and pallets placed directly on the floor.

For more details, visit our website https://www.daihen.co.jp/newinfo_2022/news_220415.html

Developing an arc welding robot designed for optimal collaboration


Arc welding robot designed for optimal collaboration

We have developed a compact and easily transportable arc welding robot designed for optimal collaboration. It features the rigidity and durability that are essential for welding applications, and it offers low vibration and high tracking accuracy.

In small and medium-sized plants in particular, the challenges to be overcome when installing industrial robots include high equipment costs and significant space requirements for installing safety fences.

The arc welding robot we have developed for optimal collaboration features a robot arm shape that requires no safety fences as it is designed not to entrap workers, allowing for collaborative work with humans. Because it is compact, it can be employed as a plug-and-play solution in a wide range of welding scenarios, including large working spaces for large-scale structures as well as for processing tasks that require precision.

Developing a wafer transfer robot capable of the industry's fastest transfer speed


Model UT-VDW3000 vacuum wafer transfer robot

We have developed the UT-VDW3000, a wafer transfer robot capable of the industry's fastest transfer rate in a vacuum environment.

In recent years, the rapid growth in demand for semiconductors due to the spread of 5G and the sweeping transition to digitization has led to semiconductor supply shortages around the world. Moreover, manufacturing processes have become more complex as semiconductors have become smaller while employing more layers. As a result, strong demand exists for ways of accelerating semiconductor production processes.

Unlike transfer in the atmosphere, wafer transfer in a vacuum environment cannot use mechanisms such as wafer sucking or gripping of wafers with claws. In addition, low vibration is essential for wafer transfers. The wafer transfer robot we have developed incorporates a direct-drive motor for the robot's arm axis and swivel axis as well as a steel belt for the arm drive. Thanks to these innovations, we have succeeded in reducing vibration during transfer to the minimum possible, thereby achieving the industry's fastest transfer speed.

Development process for the UT-VDW3000 vacuum transfer robot

Conventional product

Although it was possible to design the robot to operate at high speed, the vibrations that occurred decreased the accuracy of wafer transfer. As a result, the number of wafers that could be transferred per hour was limited to 500.

Highlights of DAIHEN's technology for **achieving high transfer speeds with low vibration**

1. **Direct-drive motor**
2. **Steel belt**
3. **High-friction pads**

UT-VDW3000

This model has achieved industry-leading wafer transfer speeds. In addition to significantly improving the productivity of semiconductor manufacturing, it has increased the number of wafers processed without increasing the number of devices used in the manufacturing operation.

Number of wafers transferred per hour: 500 → **30% UP** → Number of wafers transferred per hour: 650

This product earned the Main Prize at the 64th Nikkan Kogyo Shimbun's Best 10 New Product Awards in 2021.

For more details, visit our website https://www.daihen.co.jp/products/cleanrobot/wafer/ut-vdw3000hs.html

TOPICS

DAIHEN acquires Femitech, a system integrator from Germany

As part of our effort to strengthen our robot business in Europe, DAIHEN acquired the German system integrator Femitech in May 2022.

In addition to providing our customers with robot-related products, we are expanding our system integration capabilities and strengthening our robot systems business in order to offer comprehensive equipment and systems solutions that meet the needs and applications of customers around the world.

Through this acquisition, we intend to further strengthen sales in Europe by enhancing synergies between our company and two partners: Lazotec, which we acquired in 2020 and which has expertise in large-scale systems for major auto makers, and Femitech, which specializes in small and medium-sized systems for the agricultural, construction, and wind power industries.

Femitech headquarters

DAIHEN increases investments in RF generator systems for semiconductor manufacturing equipment

Demand for semiconductors is expected to continue increasing along with growth in semiconductor applications associated with the spread of 5G, IoT, and other information and communication technologies.

DAIHEN Industrial Machinery Corporation (a wholly owned subsidiary located in Tottori City, Japan) serves as a production center for RF generator systems used in semiconductor manufacturing equipment. The plant has adopted a variety of measures in response to requests for increased production, such as improving efficiency through process innovations and automation and by scheduling a second shift during times of peak demand. Additional automation initiatives will therefore serve to increase production capacity while improving efficiency.

The plant will implement Phase I of its investment plan by focusing on factory expansion and the introduction of automated warehouses, with the goal of achieving full-scale operation by April 2024. Thereafter, the plant will sequentially implement Phase II of its investment plan, which mainly targets an increased number of automated inspection facilities to accommodate prevailing circumstances.

■Increase in production capacity

Phase I Investment: A 1.4-fold increase in production capacity (equivalent to 50 billion yen in sales)

Phase II investment: A 2-fold increase in production capacity (equivalent to sales of 70 billion yen)

DAIHEN Industrial Machinery Corporation (Planned expansion is outlined in red.)

DAIHEN is presented with the “Excellence Award” at the 70th Nikkei Advertising Awards

At the 70th Nikkei Advertising Awards 2021, DAIHEN’s corporate advertising was singled out by the Nippon Keizai Shimbun for the Excellence Award in the Production Goods and Industrial Category, winning out over 8,603 competing candidates.

Our ad copy — which loosely translates as “The more complex the factory, the more we put our skills to use” — was highlighted against the backdrop of our company’s robots in action at our transformer case manufacturing plant. This ad clearly depicted how multiple robots can move flexibly even in factories with limited space, and that all processes can be automated.

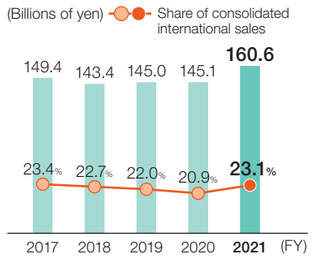
This award has added momentum to our advertising and public relations endeavors as we continue our efforts to raise the public profile of our industry.

To please our customers and contribute to the world, we remain focused on developing DAIHEN products that offer unique added value.

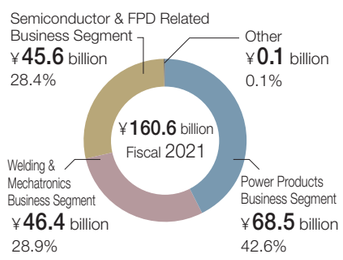
Fiscal 2021 results

During the consolidated fiscal year under review, the DAIHEN Group’s sales rose to 160,618 million yen (up 10.7% from the previous year) as a result of growing global demand for semiconductors and ongoing investment in production automation. In terms of profit, despite the negative impact of soaring prices of materials and electronic components, operating income increased to 14,191 million yen (up 2,008 million yen from the previous year) and ordinary income was 15,790 million yen (up 2,027 million yen from the previous year) as a result of increased sales and cost reductions. Profits attributable to owners of the parent totaled 10,985 million yen (up 1,573 million yen from the previous year).

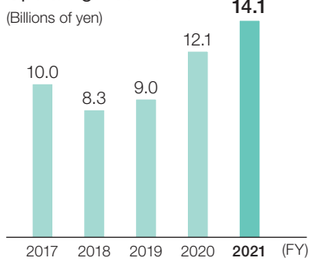
Sales



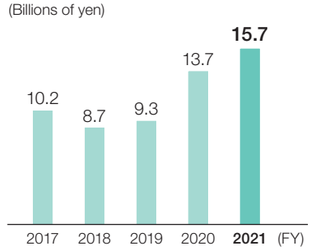
Sales by segment



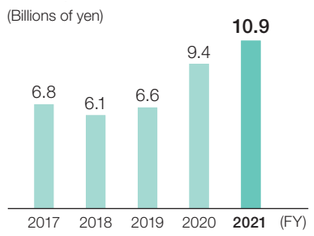
Operating income



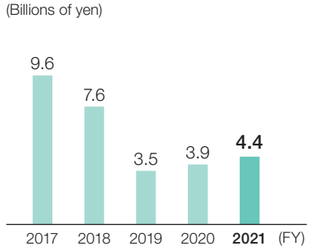
Ordinary income



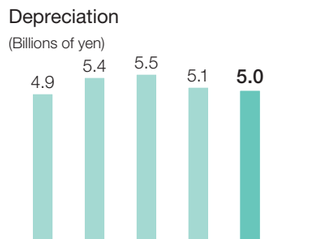
Net income attributable to owners of the parent



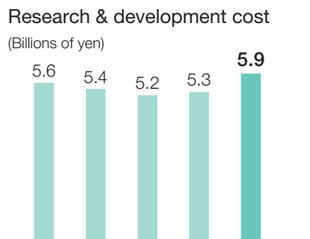
Capital investment



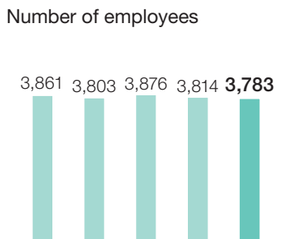
Depreciation



Research & development cost



Number of employees



Doing our part to achieve SDGs

Advocated by the United Nations since 2015, SDGs raise 17 goals societies around the world should strive to achieve with regard to social issues such as poverty, inequality and climate change. As a corporate citizen whose prime objective has long been the “simultaneous contentment for all”, the DAIHEN Group has innately contributed to the sustainable development of society for some time by using our technological abilities to create unique products that fulfill a useful purpose. In fact, every aspect of the businesses we undertake can be tied to goals that are expressed in one way or another by SDGs. Going forward, we are intent on proving ourselves useful to specific causes and making further contributions to sustainable development through even closer correlations between our business activities and SDGs.

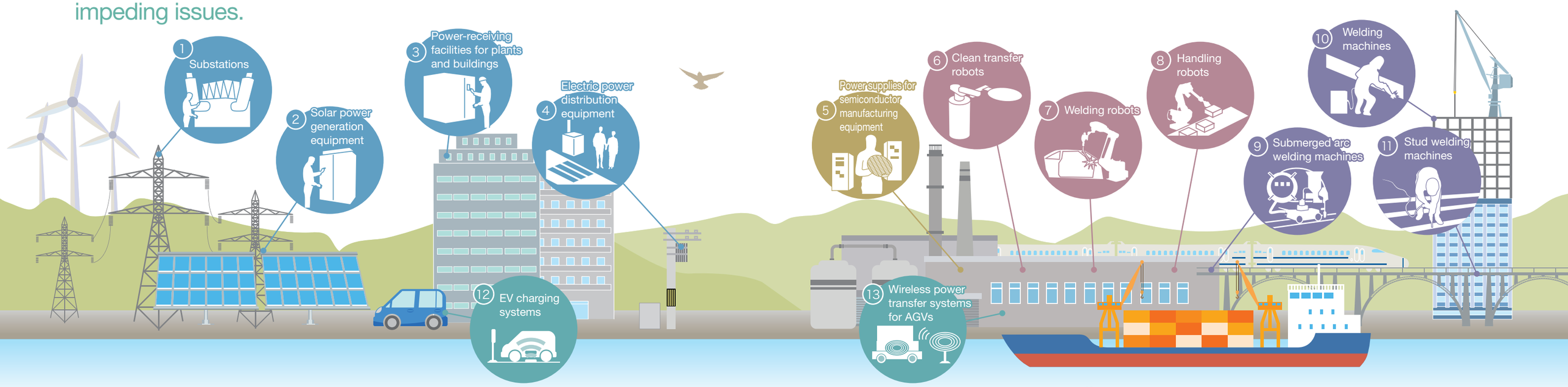
Correlations between DAIHEN Group business activities and SDGs

Breakdown		Recent important activities of the DAIHEN Group	ESG qualification	Related SDGs	Read more
Medium-term business plan (fiscal 2021 – 2023) “Simultaneous contentment for all”	Customers	• Building a product portfolio of a minimum 40% unique useful products that help customers develop business value and address social challenges • Investing 6% of sales in development in order to continue creating unique useful products	Environment, Society		Page 3
	Employees and their families	• Providing performance-based pay as a “3rd bonus” * Assuming 5% or greater year-on-year increase in operating income: 1 month’s pay if ¥8 billion, 2 months’ pay (max.) if ¥12 billion	Society		
	Shareholders	• 30% dividend ratio against 3-year average profit			
	Suppliers	• Returning 50% of cost reductions			
	Regional communities	• Building a product portfolio of a minimum 80% environment-friendly products • Donating 1% of operating income to child welfare/protection in communities that host important business sites			
	Promotion of “Green Solutions” and “Tailored Solutions”	• Optimizing standard products and packages for various applications to expand the use of sustainable energy sources, reduce environmental loads, popularize EVs, and increase energy efficiency with the aim of contributing to the emergence of a society committed to decarbonization • Developing equipment and systems for addressing manpower and instructor shortages, alleviating dangerous, labor-intensive and dirty work, accommodating different types of people and workstyles, automating work in cramped spaces, and reducing workloads associated with equipment management	Environment, Society		Pages 5–8
	Sales promotion of new products and materials in the Tokyo metropolitan area	• Building relations with reliable partners, establishing sales channels, and exploring and introducing sales methods best suited for new products and materials • Explored constructing a new head office in the Tokyo metropolitan area			
	Automation of production and back-office operations by reviewing design and workflows	• Continuing our “Loss Cutting (cost optimization) Initiative” (by automating production from the module design stage and eliminating simple back-office tasks to improve the accuracy and speed of workflows)			
	Activation of organizational strengths and human resources by introducing a “Small Company System”	• Creating an open-minded and lively workplace atmosphere in order to spawn leaders who can steer development and business with the spirit and conviction of a venture capitalist (Small Company System; periodical results reporting meetings; and educational support programs geared for acquiring PhDs and MBAs)	Society		
	Strengthening of risk management by preparing a new BCP	• Building a group-wide risk management system with priorities based on a proper balance between risks and costs (preparing a new BCP, and planning and promoting measures to activate communications)	Society, Governance		
Promotion of environmental management	Policy related to environmental protection initiatives	• Formulating the DAIHEN Group Environmental Policy	Environment		Pages 23 and 24
	Environmental initiatives: plans and results	• Improving environmental management systems (EMS) • Green procurement • Reduction of environmental risks • Expanding environment-friendly products and businesses • Preventing global warming • Preservation of biodiversity • Waste reduction • Air pollution control			Pages 25–27
	Environmental management systems (EMS)	• Promoting environmental protection through system development • Providing environmental training and implementing in-house awareness-raising activities • Internal environmental audits • Prevention of environmental accidents, responding to claims, and preventing reoccurrence of accidents • Acquisition of ISO 14001 certification			Pages 28 and 29
Promotion of environmental management	Information disclosures related to the TCFD	• Supporting TCFD recommendations • Establishing a TCFD management system • Predicting climate-related risks and opportunities, implementing countermeasures, and identifying indicators and targets	Environment		Page 30
	Energy/ resource-saving activities	• Preventing global warming (reduction of CO_2 emissions) • Research on the introduction of self-consumption power generation facilities producing renewable energy • Waste reduction (effective use of resources) • Air pollution control (management and prevention of release of chemical substances) • Preservation of biodiversity (reduction of water consumption)			Pages 31 and 32
	Business activities and environmental loads	• Promoting the visualization of the relationship between business activities and environmental loads of the DAIHEN Group and reducing those environmental loads			Page 33
	Environmental accounting of the DAIHEN Group	• Promoting environmental protection activities based on appropriate cost-sharing			Page 34
	Environmental protection initiatives at our business offices and plants	• Environmental protection initiatives at business offices and plants in Japan • Environmental protection initiatives at business locations outside Japan			Pages 35–40
Quality assurance	Providing quality products and reliable services	• Adopting a Quality Policy • Establishing a Quality Assurance System • Addressing important quality issues • Implementing quality improvement initiatives • Acquiring ISO 9001 certification • Providing specialized training in quality control • Introducing initiatives by small groups	Society, Governance		Pages 41 and 42
Information disclosures to shareholders/ investors	Enhancing IR activities	• Personalized IR activities (direct communication, telephone surveys, etc.) • Staging IR briefings for institutional investors • Disclosing useful information beyond that required by statutory disclosure standards in a timely, fair, and accurate manner	Society, Governance		Page 43
Materials procurement	Promoting business with suppliers that is mutually beneficial to all parties	• Adopted a basic policy on materials procurement. • Holding meetings to explain our procurement policy and practices to suppliers • Publishing our Declaration of Partnership Building • Revising our Green Procurement Guidelines and updating our chemical substance surveillance system • Cost-reduction activities that emphasize VE/VA proposals	Environment, Society		Page 44
Employees (Personnel)	Motivating personnel systems	• Personnel rating system with clear evaluation criteria • Fair, acceptable treatment • Offering a career autonomy program to young employees up to three years after joining the company • Offering a mentoring program throughout the company to support new employees • Support systems for diverse workstyles (accommodations for personal values and situations)	Society, Governance		Pages 45 and 46
	Creating workplace environments where people of all nature can enjoy working	• Promotion of work-life balance • Enforcing measures to prevent the spread of COVID-19 • Hiring of persons with mental and physical disabilities • Increased hiring and support for women in accordance with the Act on the Promotion of Women’s Participation and Advancement in the Workplace			
	Comprehensive health and safety initiatives	• Establishing essential group policies • Establishing an occupational health and safety management system • Promoting intrinsic safety initiatives for serious risks • Identifying risks of serious accidents and associated countermeasures • Provision of health and safety training • Ensuring that company-owned vehicles are operated safely • Establishing and implementing Safety Check Day • Implementing measures to minimize the spread of COVID-19 infections • Offering workplace vaccinations against COVID-19	Society		Pages 47 and 48
Symbiosis with regional communities	Communication with regional communities	• Community engagement activities (holding the DAIHEN Festival and participating in Eniwa Candle Night and other events) • Interaction with neighborhood schools (plant tours, internships, etc.)	Environment, Society		Pages 49 and 50
	Supporting social welfare, education, and cultural initiatives	• Support for community activities (donations to bazaars) • Educational and academic support (exhibiting at OSTEC Exhibition Hall) • Support for the cultural arts (support for Kobe Luminarie, orchestras, etc.)			
	Cleanup activities	• Contributions to community beautification efforts by all business sites			
Corporate governance	Compliance	• Establishing a Compliance Committee and a Risk Management Committee • Providing compliance training • Establishing a helpline to provide employees with advice regarding compliance	Environment, Governance		Page 53
	Risk management	• Establishing an Information Security Committee • Enforcing our information security policy • Promoting information security awareness activities • Strengthening information security foundations • Respect for intellectual property rights • Implementing training in contracting			Page 54

The pages indicated under “Read more” report on DAIHEN Group activities we think represent our best contributions to SDGs.

The DAIHEN Group is helping to reshape human society for sustainable development by creating products that solve impeding issues.

Just about anywhere you look, you can see how products from the DAIHEN Group have been used to make communities, industries and ways of life better. Our electrical power equipment supplies electricity to factories, buildings and homes, our welding machines are used to make steel buildings, bridges and ships, and our industrial robots are helping to automate factories.



Power transmission & distribution products

1 Power transformer

Developed for long service-lives, low power loss, low noise emissions and compact sizes, DAIHEN's high-quality power transformers are contributing to stable power supplies wherever they are used.

2 Power conditioner

DAIHEN has greatly reduced power consumption compared to earlier air-conditioned systems, by incorporating the industry's first air-cooled heat exchanged cooling system into these power conditioners (Awarded the Energy Conservation Grand Prize by the Energy Conservation Center, Japan in 2015)

2 3 Solar power generation package with built-in storage batteries

These package systems combine a solar power system with a series of storage batteries. The electricity generated by the solar power system is efficiently consumed by optimally charging and tapping the storage batteries, which is helping factories, buildings and other sites to lower both their electricity bills and CO_2 emissions.

3 V2X system

These systems cleverly integrate EV/PHEV charging stations and a series of storage batteries. They are helping to make communities more disaster-resilient by supplying electrical power from the EVs and battery set to important loads such as evacuation shelters during outages and other emergencies.

3 Top-runner transformer

Because it operates very efficiently with minimal energy loss and reduces CO_2 emissions, this transformer is classified as a top-runner.

4 Step voltage regulator

These units support a stable supply of power through optimal voltage control in order to overcome voltage fluctuations on the transmission lines, such as those resulting from interconnection with dispersed power sources.

4 Pad-mounted transformer

Supports effective underground power distribution as well as landscape conservation in urban areas while mitigating disasters and securing space for roads.

4 Pole-mounted transformer

Our pole-mounted transformers step down the high-voltage electricity carried over the power lines to a practical voltage that people and businesses can use, making them an integral part of stable power supplies.

RF generator for plasma applications

5 RF generator　5 Microwave supply system

These generators stably produce the high-quality plasma essential to manufacturing semiconductor devices. They are designed and built to sustainably develop industries that drive technological advances like IoT and AI.

Industrial robots

6 Wafer transfer robot

These robots speedily and accurately transfer silicon wafers in clean environments where not even a speck of dust is tolerable. They are helping to improve the productivity of semiconductor devices that underscore an energy-saving smart society.

7 Arc welding robot

Highly articulate and agile, our welding robots are a big contribution to factory automation and the higher quality welding targeted with that.

8 Handling robot

Robots are increasing productivity and making up for labor shortages by nimbly and correctly performing simple factory jobs like transferring, assembling and processing parts and materials.

Welding machines

9 Submerged arc welding machine　10 Digital inverter welding machine

Because our welding products are designed to save power and ensure safety on top of delivering the world's highest level of welding and cutting performance, DAIHEN is helping industries to increase productivity and protect the global environment at the same time.

Charging systems

11 Stud welding machine

Stud welding is method for joining steel beams and concrete using wedge-like pins known as "studs". It is widely used in the construction industry to erect buildings and bridges. DAIHEN's stud welding machines are used for building projects all across cities.

12 Level 1 and quick chargers for electric vehicles (EVs)

With a product line encompassing both Level 1 and quick chargers, we can meet the charging needs of a variety of customers. As we promote the adoption of EVs, we are contributing to the emergence of a decarbonized society.

12 Wireless charging system for EVs

Imagine simply parking your vehicle in a parking lot and having it start charging automatically. Our Magnetic Field Resonance System now achieves the highest level of charging efficiency in the industry, resulting in greater convenience for users.

13 Wireless power transfer system for AGV (Automated Guided Vehicle)

These systems enable highly efficient charging without any cables. They are helping to automate factory operations, reduce labor and improve productivity.

Since our founding, we have continuously pursued technological innovation in order to meet the needs of society. Here are some of the big moments of the DAIHEN Group.

Since the company's founding in 1919, DAIHEN has always sought the latest technologies in order to create values that meet the needs of society – those values manifested in the form of transformers, welding machines, industrial robots, semiconductor manufacturing equipment and a plethora of other products. With diligence and commitment, we have helped to improve the electrical infrastructure that powers modern life and elevate manufacturing around the world to new heights. Going forward, we want please our customers and serve society to even greater degrees by building original values that address society's woes into the products and services we provide.

Corporate history

1960

1919 The company is established in Nakatsucho, Osaka prefecture.

- July 1930 The plant is relocated to its current location in Juso.
- March 1934 Production of electric welding machines begins.

1970

- July 1961 A welding machinery plant is completed in Settsu.
- October 1961 The company's shares are listed on the Tokyo Stock Exchange.
- December 1967 The Chitose Plant is completed.

1980

- November 1973 The Mie Business Office is completed and begins full-scale production of high-capacity, extra-high-voltage transformers.
- May 1980 Production of arc welding robots begins.
- November 1982 The Settsu Robot Plant is completed.
- December 1985 Osaka Transformer Co., Ltd. is renamed DAIHEN Corporation.
- November 1987 The company begins production of RF plasma generators for semiconductor manufacturing.
- November 1987 The company is awarded the Deming Application Prize.

1990

- December 1995 Certification of ISO 9001 registration

Power receiving and distribution equipment

2000

- June 2001 Executive officer system is introduced.
- October 2003 Certification of ISO 14001 registration
- October 2007 The Rokko Business Office is completed with the relocation of the Settsu Plant.

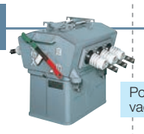
2010

- November 2010 MECS (wafer transfer robot) business is acquired.
- February 2014 Varstroj d.d. acquired.
- July 2015 Chugoku Electric Manufacturing Co., Inc. is made a consolidated subsidiary.
- March 2016 Sales of wireless charging systems are launched.

2020

Product development history

Power receiving and distribution systems



Pole-mounted automatic vacuum section switch

Step voltage regulator

Switches

Automated distribution systems

Power monitoring, control and communication equipment

Pad-mounted multi-circuit vacuum switch

Power center

Switch terminal unit

Substation device

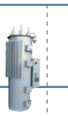
Remote monitoring and control equipment

Switch terminal unit (with sensor)

Pole-mounted automatic vacuum switch (with sensor)

Saltproof pole-mounted transformer (Applicable to Zn/Al thermal spraying)

Top-runner transformer



Remote monitored and controlled step voltage regulator

Pole-mounted transformer with auto tap changer

Solar power generation package with built-in storage batteries

Power conditioner for solar power generation (PV inverter)

Substation package for solar power generation

Emergency power supply system

Extra-high-voltage transformer with power distribution function

Extra-high-voltage transformer package

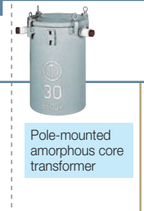
Transformers

Pole-mounted transformer

AC arc welding machine

Oil-immersed power transformer

Cast resin transformer



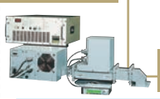
Pole-mounted amorphous core transformer

High-capacity, extra-high-voltage transformer

Pad-mounted transformer

RF generators/matching units

RF generator for plasma applications



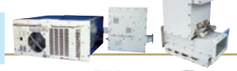
Microwave supply system for plasma application

Microwave generators/ matching units

RF automatic matching unit

30 kW high power RF generator

RF generator



High-power microwave supply system

Large robots for vacuum environment

Large glass panel transfer robot for vacuum environment

Wafer transfer robot for vacuum environment

Robots for vacuum environment

Wafer transfer robot for vacuum environment

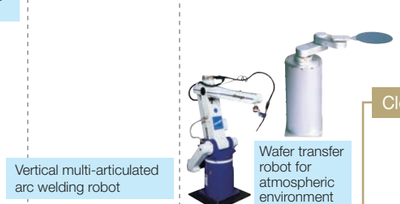
Clean transfer robots

LCD panel transfer robot

Clean transfer systems

Autonomous carrying truck

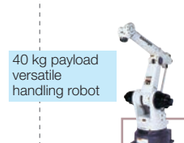
Wireless power transfer system



Vertical multi-articulated arc welding robot

Wafer transfer robot for atmospheric environment

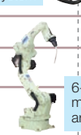
Handling robots



40 kg payload versatile handling robot

Factory automation systems

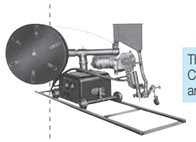
200 kg payload versatile handling robot



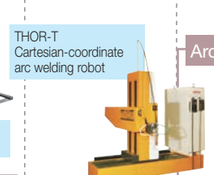
100 kg payload versatile handling robot

6-axis vertical multi-articulated arc welding robot

Arc welding robots

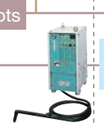


Submerged arc welding machine (Auto melting)



THOR-T Cartesian-coordinate arc welding robot

Air plasma cutting machines



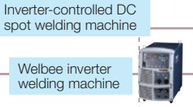
Inverter controlled super plasma cutting machine

Inverter-controlled compact air plasma cutting machine

Spot welding machines

Inverter-controlled DC spot welding machine

AC/DC pulsed MIG welding machine



Welbee inverter welding machine

High-efficiency arc welding system

Laser-arc hybrid welding system

Fuzzy control inverter MIG welding machine

Welding machines

Power receiving & distribution

Control & telecommunications

Power distribution

Dispersed power products

EV charging

Wireless charging system for EV

Level 1 EV charger

Quick charging stand for EV

Power supply products for plasma generation

Clean transfer products

In-plant automatic transfer

Mechatronics

Metalworking

Power Products Business Segment

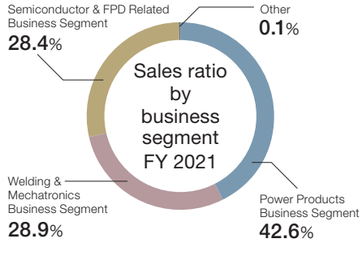
Semiconductor & FPD Related Business Segment

Welding & Mechatronics Business Segment

Three business fronts where we are helping to improve the electrical infrastructure that powers modern life and elevate manufacturing around the world to new heights

Though DAIHEN began by making solely transformers at first, we quickly got a rhythm for developing products and technologies that society has needed, e.g., applying what we knew about transformers to developing welding machines, responding to the needs to robotize welding work, and transitioning welding control into RF generators for manufacturing semiconductors.

Under “Step Up 2023”, our Medium-term Business Plan, we are transforming ourselves into a company that delivers solutions to societal issues. Specifically, we promote our Green Solutions that contribute to the emergence of a decarbonized society as well as Tailored Solutions that provide an optimal response to the issues faced by those involved in manufacturing.



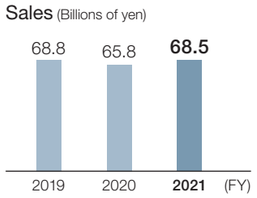
Power Products Business Segment


V2X emergency power system

Overview

Power equipment is where DAIHEN got started. The company began by making pole-mounted transformers in the 1910s when the first electrical grids were branching out across Japan. Ever since then, we have been a leading manufacturer of transformers and supplied vast numbers of highly reliable products, thus making a major contribution to ensuring the stable supply of electricity society cannot do without.

Today, we are proactively engaged in developing products and systems that are helping to wean society off its dependence on carbon-based fuels, by expanding the use of sustainable energy sources and encouraging the spread of EVs.

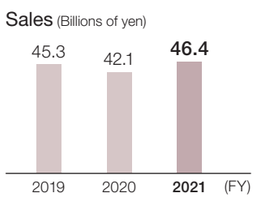


Performance in fiscal 2021

As a result of ongoing investment in updated power distribution equipment in the marketplace, sales totaled 68,507 million yen (up 4.0% from the previous year). On the other hand, the impact of soaring material prices contributed to a decline in operating income to 5,563 million yen (down 1,186 million yen from the previous year).

Welding & Mechatronics Business Segment


Laser-arc hybrid welding equipment



Overview

Welding is one of the elemental technologies that modern manufacturing cannot do without. It plays a vital role in building everything from cars, trains and ships to megastructures like bridges and towers. Over the years, DAIHEN has masterfully wielded its proprietary control technologies to make and supply welding machines that meet the needs of production sites. And, we have integrated mechatronics into those technologies to develop welding robots. As one of the top manufacturers of welding equipment in the world, we aim to solve the plethora of issues people who are engaged in manufacturing in one way or another face, not only by encouraging businesses to automate their welding processes but also by upgrading handling robot lineups and applications.

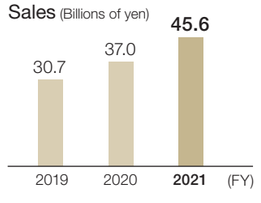
Performance in fiscal 2021

Sales rose to 46,376 million yen (up 10.1% from the previous year) due to the normalization of economic activity as responses to the COVID-19 pandemic were softened in other countries and steady investment related to automation of production. Operating income, however, increased only slightly to 3,820 million yen (up 7 million yen from the previous year) as a result of increased R&D expenses and other factors.

Semiconductor & FPD Related Business Segment


ACTRANS series wafer transfer robot

AVANCER series RF generator



Overview

Life in many parts of the world today is comfortable and affluent because of smartphones, tablets, large-screen TVs and many of great gadgets. DAIHEN’s plasma generators and clean transfer robots are hard at work in the clean rooms and factories that are manufacturing the semiconductor devices and flat panel displays that are instrumental to these products. Our advanced technologies are helping to keep production plants around the world running 24 hours a day, 365 days a year.

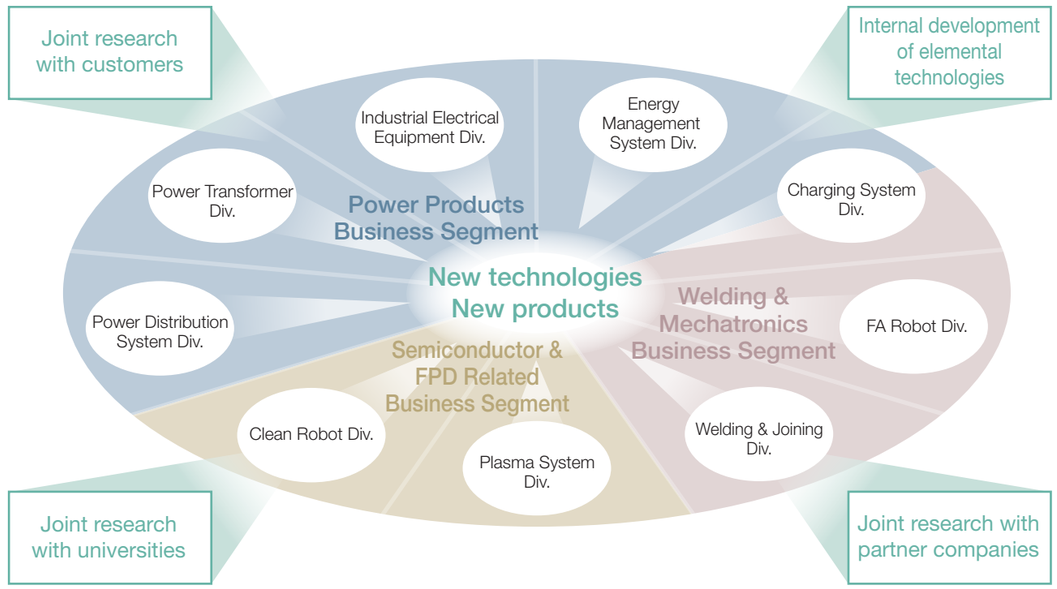
Performance in fiscal 2021

Sales totaled 45,580 million yen (up 23.1% from the previous year) and operating income was 8,785 million yen (up 2,604 million yen from the previous year) due to rapidly growing demand for semiconductors across a wide range of applications such as 5G, IoT, and AI in line with the adoption of information and communication technology. Continued aggressive capital investment to address the global semiconductor shortage also contributed.

Sales and operating income from real-estate leasing and other business did not change much from the previous year at, respectively, 187 million yen and 56 million yen.

New business (R & D)

DAIHEN has cultivated and refined the power transformation and control technologies it has accumulated over the years into original core technologies by organically integrating them with the technological advances that emerge from the processes of social and scientific evolution. From this base of power electronics and mechatronics, we are aggressively promoting research and development both internally on our own and jointly in cohort with universities, private research institutes and other interests in an effort to create and foster new pillar businesses of the next generation.

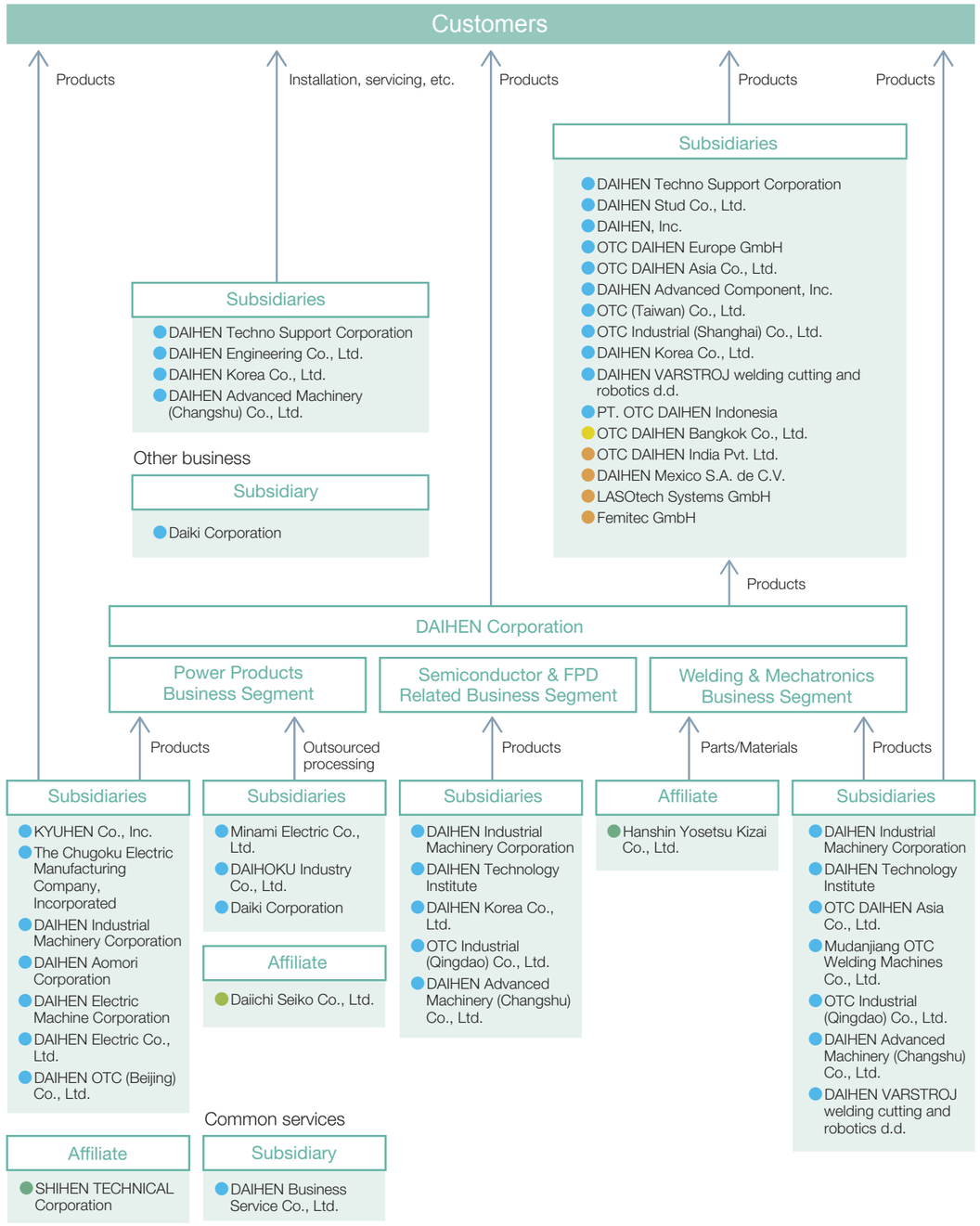


DAIHEN creates value as a consolidated group of companies that do it all from manufacturing to sales and servicing.

●: Consolidated subsidiary ●: Non-consolidated subsidiary accounted for by equity method ●: Non-consolidated subsidiary
●: Affiliated company accounted for by equity method ●: Affiliated company not accounted for by equity method

Segment … Main products	Manufacturing	Sales, servicing, etc.
Power Products Business Segment Power transmission and distribution products, etc.	DAIHEN Corporation ● KYUHEN Co., Inc. ● The Chugoku Electric Manufacturing Company, Incorporated ● DAIHEN Industrial Machinery Corporation ● DAIHEN Aomori Corporation ● DAIHEN Electric Machine Corporation ● Minami Electric Co., Ltd. ● DAIHOKU Industry Co., Ltd. ● Daiki Corporation ● DAIHEN Electric Co., Ltd. ● DAIHEN OTC (Beijing) Co., Ltd. ● SHIHEN TECHNICAL Corporation ● Daiichi Seiko Co., Ltd.	DAIHEN Corporation ● KYUHEN Co., Inc. ● The Chugoku Electric Manufacturing Company, Incorporated ● DAIHEN Techno Support Corporation ● DAIHEN Engineering Co., Ltd. ● DAIHEN Electric Co., Ltd. ● SHIHEN TECHNICAL Corporation
Welding & Mechatronics Business Segment Welding machines, industrial robots, wireless charging systems, etc.	DAIHEN Corporation ● DAIHEN Industrial Machinery Corporation ● DAIHEN Stud Co., Ltd. ● DAIHEN Technology Institute ● OTC DAIHEN Asia Co., Ltd. ● Mudanjiang OTC Welding Machines Co., Ltd. ● OTC Industrial (Qingdao) Co., Ltd. ● DAIHEN Advanced Machinery (Changshu) Co., Ltd. ● DAIHEN VARSTROJ welding cutting and robotics d.d. ● LASOtech Systems GmbH ● Femitec GmbH ● Hanshin Yosetsu Kizai Co., Ltd.	DAIHEN Corporation ● DAIHEN Techno Support Corporation ● DAIHEN Stud Co., Ltd. ● DAIHEN, Inc. ● OTC DAIHEN Europe GmbH ● OTC DAIHEN Asia Co., Ltd. ● OTC (Taiwan) Co., Ltd. ● OTC Industrial (Shanghai) Co., Ltd. ● DAIHEN Korea Co., Ltd. ● PT. OTC DAIHEN Indonesia ● DAIHEN VARSTROJ welding cutting and robotics d.d. ● OTC DAIHEN Bangkok Co., Ltd. ● OTC DAIHEN India Pvt. Ltd. ● DAIHEN Mexico S.A. de C.V. ● LASOtech Systems GmbH ● Femitec GmbH
Semiconductor & FPD Related Business Segment RF generators for semiconductor manufacturing, etc.	DAIHEN Corporation ● DAIHEN Industrial Machinery Corporation ● DAIHEN Technology Institute ● DAIHEN Korea Co., Ltd. ● OTC Industrial (Qingdao) Co., Ltd. ● DAIHEN Advanced Machinery (Changshu) Co., Ltd.	DAIHEN Corporation ● DAIHEN Techno Support Corporation ● DAIHEN Advanced Component, Inc. ● DAIHEN Korea Co., Ltd. ● DAIHEN Advanced Machinery (Changshu) Co., Ltd.
Real-estate leasing, etc.		● Daiki Corporation

The DAIHEN Group is composed of the parent DAIHEN Corporation, 36 subsidiaries and six affiliates. As our main line of business, we manufacture, sell and service power transmission and distribution products, welding machines, industrial robots, RF generators for semiconductor manufacturing and charging systems. The group is organized by line of business, business segment and affiliation as shown below.

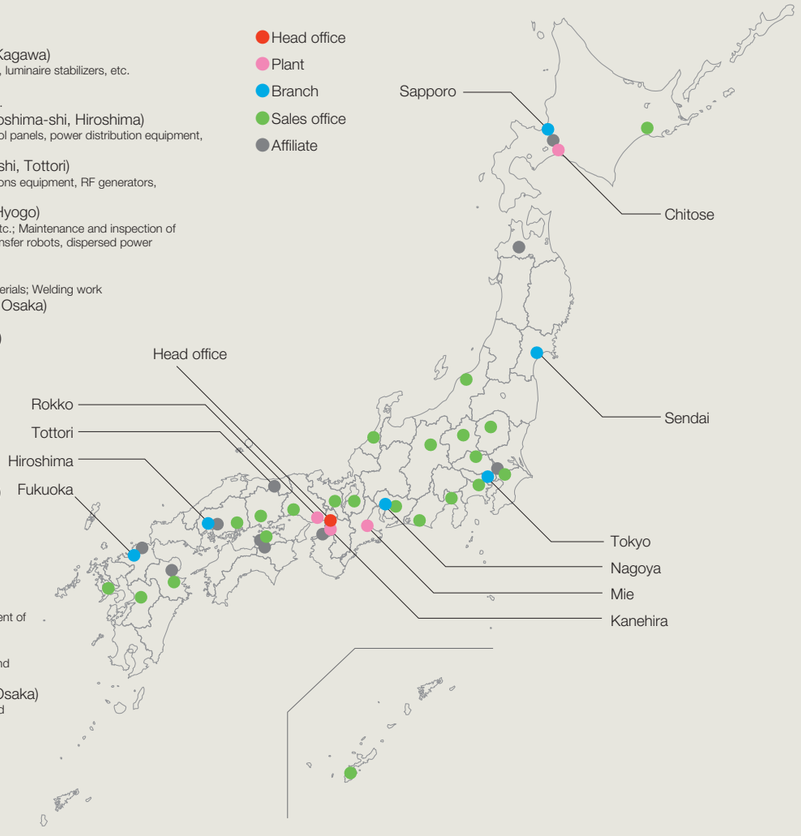


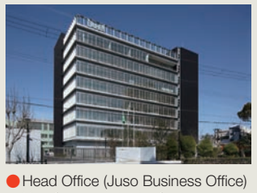
The DAIHEN Group tailors its services to each specific market and uses every strength it can muster from across the group to help customers solve their issues.

Network in Japan

Main group companies

- **SHIHEN TECHNICAL Corporation (Tadotsu-cho, Kagawa)**
  Manufacture and sale of power transformers, electronic devices, luminaire stabilizers, etc.
- **KYUHEN Co., Inc. (Fukutsu-shi, Fukuoka)**
  Manufacture and sale of power transformers, water heaters, etc.
- **The Chugoku Electric Manufacturing Co., Inc. (Hiroshima-shi, Hiroshima)**
  Manufacture and sale of transformers, distribution panels, control panels, power distribution equipment, monitoring and control systems, etc.
- **DAIHEN Industrial Machinery Corporation (Tottori-shi, Tottori)**
  Manufacture of welding machines, control and telecommunications equipment, RF generators, dispersed power equipment, etc.
- **DAIHEN Techno Support Corporation (Kobe-shi, Hyogo)**
  Sale of welding machines, cutting machines, industrial robots, etc.; Maintenance and inspection of welding machines, cutting machines, industrial robots, clean transfer robots, dispersed power equipment, etc.
- **DAIHEN Stud Co., Ltd. (Kobe-shi, Hyogo)**
  Sale of welding machines; Manufacture and sale of welding materials; Welding work
- **DAIHEN Electric Machine Corporation (Osaka-shi, Osaka)**
  Manufacture of industrial transformers
- **DAIHEN Aomori Corporation (Hirosaki-shi, Aomori)**
  Manufacture of fuses, power distribution equipment/parts and surge protective devices
- **Minami Electric Co., Ltd. (Tadotsu-cho, Kagawa)**
  Manufacture and processing of cans, sheet metal and related mechanical fittings
- **DAIHEN Technology Institute (Kitsuki-shi, Oita)**
  Manufacture of clean transfer robots, dispersed power equipment, equipment for EV charging systems, etc. Development of software.
- **DAIHOKU Industry Co., Ltd. (Eniwa-shi, Hokkaido)**
  Manufacture and processing of cans, sheet metal and related mechanical fittings
- **DAIHEN Business Service Co., Ltd. (Osaka-shi, Osaka)**
  Human resource placement by rehiring former DAIHEN Group retirees
- **Daiki Corporation (Osaka-shi, Osaka)**
  Processing of transformer parts; Real-estate leasing; Management of sports facilities
- **DAIHEN Engineering Co., Ltd. (Osaka-shi, Osaka)**
  Installation, testing, servicing, and remodeling of transformers and power receiving and distribution equipment
- **DAIHEN Welfare Enterprise Co., Ltd. (Osaka-shi, Osaka)**
  Health, welfare, and pension work for employees of DAIHEN and subsidiary companies





Head Office (Juso Business Office)
Manufacture and sale of power transmission and distribution products and semiconductor devices

Rokko Business Office
Sale of welding machines; Manufacture and sale of industrial robots, etc.

Mie Business Office
Manufacture of large-class power transformers

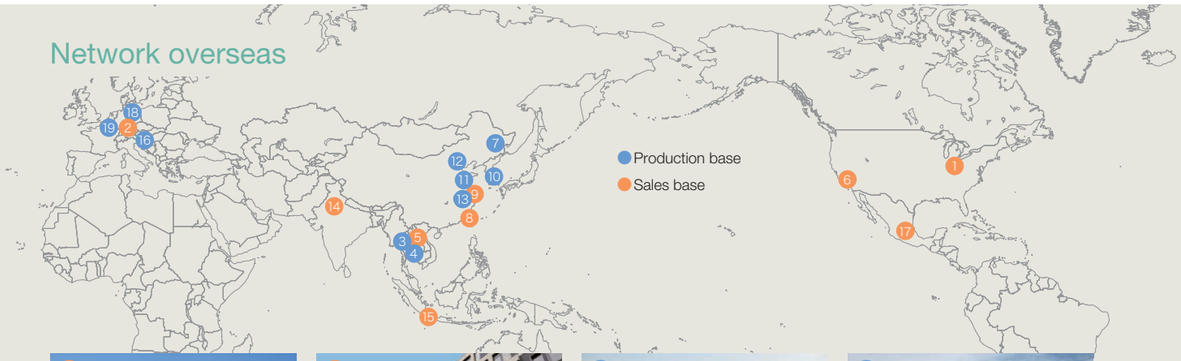
Chitose Plant
Manufacture of power transmission and distribution products

Kanehira Plant
Servicing of pole-mounted transformers

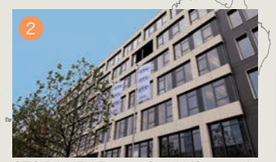
DAIHEN Industrial Machinery Corp.
Manufacture of welding machines, control and telecommunications equipment, RF generators, dispersed power equipment, etc.

DAIHEN Technology Institute
Manufacture of clean transfer robots, dispersed power equipment, equipment for EV charging systems, etc. Development of software.

Network overseas



DAIHEN, Inc. (USA) Dayton Office
Sale of welding machines, cutting machines, industrial robots, etc. in North, Central and South America



OTC DAIHEN Europe GmbH (Germany)
Sale of welding machines, cutting machines, industrial robots, etc. in Europe

OTC DAIHEN Asia Co., Ltd. (Thailand)
Manufacture and sale of welding machines, cutting machines and related parts in Southeast Asia and Oceania

DAIHEN Electric Co., Ltd. (Thailand)
Manufacture and sale of power transformers, etc.

OTC DAIHEN Bangkok Co., Ltd. (Thailand) Sale of welding machines, cutting machines, welding/cutting torches, industrial robots, etc.

DAIHEN Advanced Component, Inc. (USA)
Sale of RF generators, clean transfer robots, etc.

Mudanjiang OTC Welding Machines Co., Ltd. (China)
Manufacture of welding machines and related parts

OTC (Taiwan) Co., Ltd.
Sale of welding machines, cutting machines, industrial robots, etc.

OTC Industrial (Shanghai) Co., Ltd. (China)
Sale of welding machines, cutting machines, industrial robots, etc.

DAIHEN Korea Co., Ltd.
Manufacture, sale, maintenance and inspection of welding machines, cutting machines, industrial robots, RF generators, clean transfer robots, etc.

OTC Industrial (Qingdao) Co., Ltd. (China)
Manufacture of welding machines and related parts, RF generators, etc.

DAIHEN OTC (Beijing) Co., Ltd. (China)
Manufacture and sale of transformers, etc.

DAIHEN Advanced Machinery (Changshu) Co., Ltd. (China)
Manufacture, sale, maintenance and inspection of clean transfer robots, etc.

OTC DAIHEN India Pvt. Ltd.
Sale of welding machines, cutting machines, industrial robots, etc.

PT. OTC DAIHEN Indonesia
Sale of welding machines, cutting machines, industrial robots, etc.

DAIHEN VASTROJ welding cutting and robotics d.d. (Slovenia)
Manufacture and sale of welding machines and system products in Europe

DAIHEN Mexico S.A. de C.V.
Sale of welding machines, cutting machines, industrial robots, etc.

LASOtech Systems GmbH (Germany)
Manufacture and sale of system products in Europe

Femitec GmbH (Germany)
Design, manufacture, and sale of system products in Europe

Osaka Transformer Co., Ltd.

"OTC" is the brand name DAIHEN uses outside of Japan.

The DAIHEN Group Environmental Policy

Basic Philosophy

The DAIHEN Group considers environmental protection to be among the most important management challenges. Our goal is to actively address societal issues in order to contribute to the emergence of a society committed to sustainability in keeping with our corporate objective of achieving “simultaneous contentment for all”.

Conduct Policy

In line with our corporate basic philosophy, the DAIHEN Group will contribute to the emergence of a society committed to decarbonization, recycling, and harmony with nature by developing its business globally in each industry segment in keeping with the following guidelines.

1 Reduce environmental impacts resulting from business operations

We shall address the following initiatives by considering all steps encompassing product design, development, procurement, manufacturing, and distribution as well as product use and disposal.

1. Promote product development that addresses societal issues.
2. Promote energy-efficiency initiatives.
3. Promote resource conservation, waste reduction, and recycling.
4. Reduce the environmental impact of the use of chemical substances.
5. Promote green procurement.

2 Comply with laws and other requirements

We shall comply with legal and other requirements related to the environment. We shall also adopt and administer voluntary management standards in order to implement pollution controls intended to protect the environment.

3 Establish environmental objectives and targets and periodically review them

Each division of the DAIHEN Group shall establish environmental targets and promote environmental preservation initiatives.
Moreover, each division shall periodically review its targets, and continually seek to improve its environmental management system (EMS) in ways that ultimately enhance its environmental performance.

4 Raise environmental awareness

In order to increase environmental awareness, we shall enhance environmental education and deepen understanding of our environmental policy among all involved in our organization.

5 Strengthen relationships with stakeholders

We shall provide stakeholders with timely environmental information in an easy-to-understand manner, maintain open communication, and strive to increase understanding and trust.

General Director Responsible for the Environment

Shingo Wada
Senior Vice President and
Member of the Board

Among the various global environmental protection challenges currently faced, the implementation of countermeasures against global warming has become a major issue. For its part, the Japanese government has announced its intention to contribute to the emergence of a decarbonized society.

In 2003, as part of the DAIHEN Group Environmental Policy, we adopted environmental targets as well as medium- and long-term goals to achieve them in the form of the Voluntary Environmental Action Plan. We are currently promoting reduction activities under our 7th Voluntary Action Plan on the Environment, which was launched last fiscal year. This plan aims to reduce greenhouse gas emissions by 46% from fiscal 2013 levels by fiscal 2030 and seeks to achieve carbon neutrality by fiscal 2050.

Looking to our production activities in fiscal 2021, we successfully achieved all our targets in terms of preventing global warming; preserving biodiversity; reducing waste; and controlling air pollution, which represent our initiatives in the process stage of our voluntary action plan (see pages 31 and 32).

Regarding the product stage, we have been able to develop many eco-friendly products, thereby increasing the ratio of R&D expenses to sales in particular. We have developed products that address social issues while promoting our Green Solutions and Tailored Solutions to achieve a high degree of social contribution.

In this way, our environmental performance is steadily improving, and we will continue to strengthen our efforts to contribute to the emergence of a society committed to sustainability.

Environmental management at the DAIHEN Group

In the DAIHEN Group, we want to be the “company of choice of many”. We figure that begins by building better relations with stakeholders through our environmental protection activities. So, we treat environmental protection as one of the top priorities in the way we go about business. This “pro-environmental” approach to business management guides us in formulating and implementing strategies and actions that are helping to reshape the world for sustainable development, and protecting the environment from our corner of society.

Contributing to society’s sustainable development is, in our view, a social responsibility of the DAIHEN Group. This requires us to develop sustainably as a business as well and makes “pro-environmental” management a key factor in steering us along that path.

Because we are a manufacturer, we recognize how important it is that we reduce the environmental loads of our products at every stage of the product lifecycle from conception to discard and that, by doing so, we can fulfill our responsibility as a business to society. Therefore, within the DAIHEN Group, we want to use the environmental management systems (EMS) we built for the purpose of reshaping society for sustainable development, to hone our own sustainable development, first and foremost in the ways illustrated below.

Contributing to the emergence of a sustainable society

Implementation of environmental management at the DAIHEN Group

1 Eco-friendly production activities

We monitor and measure the impact of our production activities on the environment and take action in various ways to reduce the environmental load of products in the manufacturing stage. We also apply these actions to our overseas production sites in China, Thailand, etc. and are building a global EMS.

2 Contributing to the environment through our products

Because we are a manufacturer, it is an important mission of the DAIHEN Group to reduce the environmental loads of our products at every stage of the product lifecycle from conception to discard. We can fulfill our responsibility as a business to society by creating environment-friendly products that help to reshape society for sustainable development.

3 Contributing to society through environmental initiatives

The plethora of environmental activities that we conduct in the DAIHEN Group add to the good relations we enjoy with our stakeholders and hone our own sustainable development as a business. A critical factor in accomplishing that is for every individual on our global workforce to willfully and purposely act as a member of society.

Environmental Management System (Basis of activities)

○Compliance ○Risk management ○Communication ○Training and education

Promoting Environmental Management

Environmental initiatives: plans and results

As part of our commitment to environmental protection, the DAIHEN Group has established both medium- and long-term environmental objectives and targets according to our Voluntary Environmental Action Plan. Under our 7th Voluntary Environmental Action Plan targeting fiscal 2021-23, we have adopted reduction targets and have implemented initiatives related to the prevention of global warming for fiscal 2030.

In fiscal 2021, we achieved all the targets of our Voluntary Environmental Action Plan, and our performance has been steadily improving.

Regarding our management initiatives, we continue to achieve registration with ISO 14001:2015 certification and are working to reduce our environmental impacts in collaboration with our business partners.

In addition, by developing green products and working to expand their sales, we are helping our customers achieve significant reductions in their CO_2 emissions.

Although our CO_2 emissions and water consumption have both increased due to the effects of the COVID-19 pandemic, we have taken steps to reduce water consumption at each of our business locations and plants.

Moreover, as part of our waste reduction efforts, we promoted recycling and recovery of reusable materials and expanded use of our returnable steel shipping containers outside Japan.

In our air pollution prevention initiatives, we implemented emission control measures such as switching to VOC-free paints.

For fiscal 2022, we have adopted even more stringent targets, promoted alignment with our core business operations, and adopted initiatives addressing risks and opportunities in accordance with the requirements of ISO 14001:2015. In so doing, we are maintaining and improving our environmental management system (EMS) by responding to all changes in the environment.

Fiscal 2021 results in the DAIHEN Group's 7th Voluntary Environmental Action Plan

Corporate objective	Stage	Policies	Targets for fiscal 2021		Results of initiatives in fiscal 2021	Initiatives in fiscal 2021	Evaluated by DAIHEN	Related SDGs
Simultaneous contentment for all	Management	Improving environmental management systems (EMS)	・Improve the EMS under ISO 14001:2015 requirements. ・Prepare for certification of new business divisions.		Maintained ISO 14001:2015 certifications	・Internal audit: June 1 to July 29 ・Renewal review: August 3 to September 2 Certification of renewed registration: October 15 ・Launched initiatives in the EMS Division and Charging System Division.	○	
		Green procurement	・Promote environmental initiatives at partner companies. ・Solicit at least one improvement proposal from each company.		Increased environmental awareness	・Identified the extent of environmental initiatives and environmental impacts of 19 companies with significant environmental impacts. ・Conducted individual interviews with 13 companies that had not yet received ISO 14001 certification or other official certification. ・Solicited at least one improvement proposal from each company.	○	
		Reducing environmental risk	・Select participants for specialized environmental training. ・Provide training in energy management (via e-learning).		Improved knowledge of relevant laws and regulations	・Selected 36 participants for specialized environmental training. ・Provided training on energy management via e-learning from December to March.	○	
	Products	Expanding green products and businesses	Achieve a green product and business sales composition ratio of at least 78%. Set environmental design targets for new products.		78.2% of all sales accounted for by green products	・38 models of green products (5 power distribution units; 4 large units; 1 industrial electric unit, 1 EMS unit, 3 charging units, 4 FA robots, 4 clean robots, 11 welding/joining robots, and 5 plasma systems) ・Ratio of green products to sales: 78.2% Sales of green products: 89,854 million yen Total product sales: 114,954 million yen	○	
		Preventing global warming in the supply chain (Scope 3, Category 11)	・Quantify CO_2 emissions. ・Set reduction targets.		Set goals and developed a development roadmap	・Scope 3, Category 11 CO_2 emissions for fiscal 2020: 6,565,000 t-CO_2 Emissions per unit of sales: 45,200 t-CO_2/million yen ・Scope 3, Category 11 CO_2 emissions for fiscal 2021: 6,512,000 t-CO_2 Emissions per unit of sales: 40,500 t-CO_2/million yen ・Reduction target: Reduce emissions per unit of sales by 25% (2.5%/year) by fiscal 2030 relative to fiscal 2020 level. Fiscal 2021 reduction rate for emissions per unit of sales: 10.4%	○	
	Processes	Preventing global warming (Scope 1 + 2)	Reduce CO_2 emissions intensity by 2% relative to fiscal 2020 levels.		Reduced by 6.7%	・CO_2 emissions intensity: 0.125 t-CO_2/million yen **→ Compared to FY 2020: 6.7% reduction** Reference: CO_2 emissions totaled 20,057 t-CO_2	○	
		Preservation of biodiversity	・Reduce water consumption intensity by 1% from fiscal 2020 levels. ・Promote efforts to preserve biodiversity at each business site.		Reduced by 7.3%	・Water consumption intensity: 0.76 m3/million yen **→ Compared to FY 2020: 7.3% reduction** Reference: Water consumption totaled 121,372 m3 ・Participated in cleanup activities around business locations and plants.	○	
		Waste reduction	Reduce waste disposal intensity by 1% from fiscal 2020 levels.		Reduced by 13.8%	・Waste disposal intensity at business locations in Japan: 5.35 kg/million yen **→ Compared to FY 2020: 13.8% reduction** Reference: Waste disposal totaled 859.7 tonnes (excluding reusable resources)	◎	
		Air pollution control	Maintain atmospheric emissions of chemical substances subject to the PRTR at fiscal 2020 levels or better.		Reduced by 12.1%	・Atmospheric emissions of chemical substances subject to PRTR: 67,630 kg **→ Compared to FY 2020: 12.1% reduction**	◎	

Environmental Report
Promoting Environmental Management • Environmental initiatives: plans and results

The DAIHEN Group's 7th Voluntary Environmental Action Plan

We formulated our 7th Voluntary Environmental Action Plan with medium-term activity targets for 2021-2023 in the areas of "Management", "Products" and "Processes".

In the "Management" area, we will retool our environmental management systems (EMS) so as to effectively merge them into business activities under ISO 14001:2015 requirements.

In the "Products" area, we will continue to create and supply environment-friendly products on axes of "Green Solutions" and "Tailored Solutions", and contribute to the fight against global warming and society as a whole with energy-saving (high-efficiency) products.

In the "Processes" area, we will take a global approach to protecting the environment by sharing the environmental and biodiversity conservation activities and results of our business sites in Japan to our overseas production sites.

With regard to prevention of global warming, we adopted the goal of reducing our CO_2 emissions by 46% in fiscal 2030 relative to fiscal 2013 levels as part of our target of achieving carbon neutrality by fiscal 2050. As for our targets for fiscal 2022, we have revised these upward in light of the positive results achieved in fiscal 2021.

The DAIHEN Group will continue its social contributions to global environmental protection and will further speed up those activities to achieve "simultaneous contentment for all".

Fiscal 2022 targets in the DAIHEN Group's 7th Voluntary Environmental Action Plan

Corporate objective	Stage	Activities	Targets for fiscal 2022	Related SDGs
Simultaneous contentment for all	Management	Improving environmental management systems (EMS)	・Improve the EMS under ISO 14001:2015 requirements. ・Acquire certification for new divisions.	
		Green procurement	・Promote environmental activities with suppliers. ・Solicit at least one improvement proposal from each company.	
		Reducing environmental risk	・Provide training in industrial waste management via e-learning. ・Provide training in controlling environmental pollution via e-learning.	
	Products	Expanding green products and businesses	Percentage of all sales accounted for by green products/ businesses 79% or more ··· Set environmental design targets for new products.	
		Preventing global warming in supply chains (Scope 3)	Reduce CO_2 emissions intensity (Scope 3, Category 11) by at least 4% from the fiscal 2021 level.	
		Focusing on increasing avoided emissions as part of our effort to reduce CO_2 emissions	Increase avoided CO_2 emissions by at least 30,000 t-CO_2 (through generation of renewable energy, conversion to EVs, etc.)	
	Processes	Preventing global warming (Scope 1 + 2)	Reduce CO_2 emission intensity by at least 4% from fiscal 2021 levels.	
		Preservation of biodiversity	・Reduce water consumption intensity by at least 6% from the fiscal 2021 level. ・Take actions to preserve biodiversity (at each business site).	
		Waste reduction	Reduce waste disposal intensity by at least 3% from the fiscal 2021 level.	
		Air pollution control	Keep emissions of PRTR substances at or below fiscal 2020 levels.	

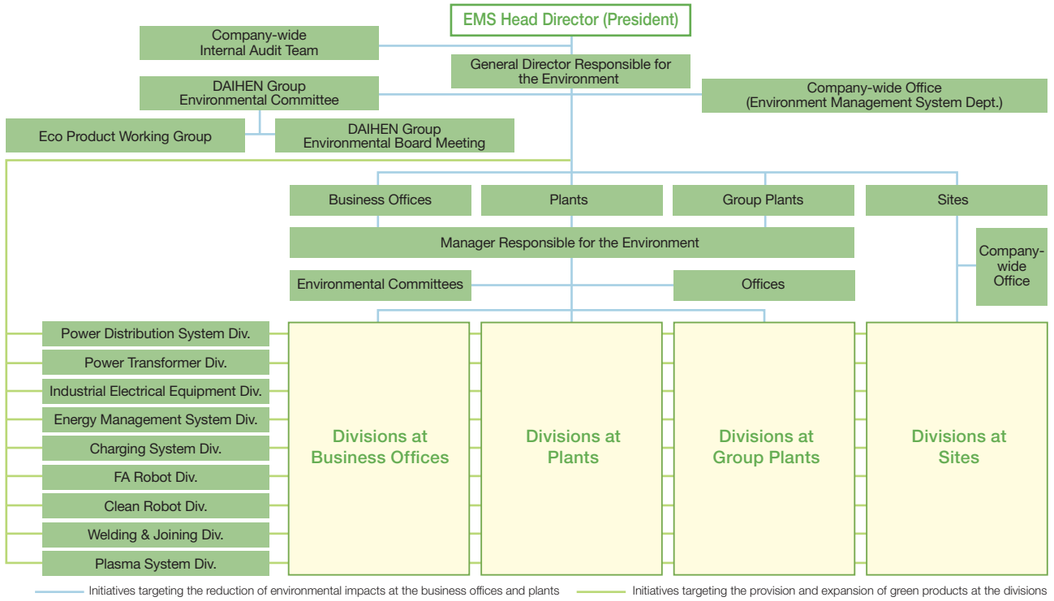
Environmental management system (EMS)

The DAIHEN Group has proactively established an effective environmental management system (EMS) and continuously improves it in order to strengthen environmental management group-wide. We intend to continue promoting environmental preservation initiatives in the future.

Promotion system

The DAIHEN Group has established and implemented the DAIHEN Group Environmental Management System (EMS) under the President & CEO of DAIHEN Corporation as the EMS Head Director and the Environmental Officer as the General Director Responsible for the Environment. The DAIHEN Group promotes a variety of environmental conservation initiatives through its business operations and according to its environmental policy.

The DAIHEN Group has established a system that supports environmental protection initiatives from two directions; each office and plant implements environmental conservation related to its business operations, and each division develops plans for eco-friendly products and services. The Eco Product Working Group and the DAIHEN Group Environmental Board Meeting, organizations under the auspices of the DAIHEN Group Environmental Committee, have been established in an effort to promote group-wide initiatives.



Eco Product Working Group

As a subordinate organization of the DAIHEN Group Environmental Committee, this working group comprises the managers of the various technical departments that undertake the development and design of green products.

The members deliberate on applications for the internal certification system for green products, review reference documents for green products, and manage the progress of product development themes.

DAIHEN Group Environmental Board Meeting

At the end of the fiscal year, the managers who promote environmental initiatives at our business divisions and sites report the results of their initiatives for the relevant fiscal year as well as the initiatives planned for the subsequent fiscal year. In this way they share the latest information and discuss solutions to the issues they are facing.

By deploying excellent improvement initiatives in a cross-departmental manner, the members of this meeting contribute to the continually improving environmental performance of the DAIHEN Group.

Environmental training and internal awareness initiatives

We provide wide-ranging environmental training in an effort to improve the environmental awareness of all employees, enable them to recognize their responsibilities, and translate their duties into action.

Expansion of environmental training opportunities

We provide varied levels of environmental training targeted at specific groups: all the Group employees; various employee segments such as new hires; and employees requiring specific expertise such as personnel undergoing internal audit training and personnel assigned environmental protection duties. Training materials and the relevant data used for various training courses are published on the company intranet and are used for training and for improvement of knowledge within divisions.

Publication of Eco News

The house journal Eco News is published periodically on the company intranet for all of our employees to read in order to raise the environmental awareness of our workforce.

Environmental cards distributed

We distributed a pocket card to all our Group employees and temporary workers that contains the text of “My Environmental Declaration” and lists our environmental policies and targets.

Internal environmental audits

We conducted internal audits of all 91 departments of the DAIHEN Group in 2021.

The audits emphasized the following five points.

1) Whether environmental impacts resulting from changes in business activities or situations are sampled and assessed in a timely manner
2) Whether legal requirements are properly understood and proper action has been taken in regards thereto.
3) Whether environmental targets are being set according to one’s situation and with the likelihood of attaining “intended results”, and an environmental management program is being implemented and continuously improved.
4) Whether operational management and document management are being undertaken in accordance with the rules.
5) Whether the SE Center is planning and conducting emergency drills.

Internal audit

Environment-related incidents and complaints

We had zero environment-related accidents in fiscal 2021. We did receive the below five complaints, but they have been addressed and measures taken to ensure they do not reoccur.

○ Environment-related complaints received in fiscal 2021 (Juso Business Office)

Complaint	Our response
Complaints from neighborhood residents concerning building demolition noise and objects striking fences	Assembling scaffolding, protecting fences to prevent objects from striking them, and ensuring work is done with care
Complaints from neighborhood residents about the noise of building demolition and vibration caused by forklifts	Issuing instructions to work quietly with heavy machinery and limit the speed of forklift travel
Complaints from neighborhood residents about noise from the demolition of a wooden factory	Greeting neighborhood residents and engaging in comprehensive consultations before starting work
Complaints from neighborhood residents about noise and vibration during road pavement repair work on company grounds	Selecting heavy machinery capable of low-noise operation; greeting neighborhood residents and engaging in comprehensive consultations before starting work
Complaints from neighborhood residents about nighttime noise in the draft chamber of the former Technical Center	Modifying the draft chamber for low-noise operation and shutting down nighttime operation

Certification of ISO 14001 registration

In order to promote environmental protection initiatives throughout the DAIHEN Group while continuously reducing our environmental impact in line with our Environmental Policy, we have established an environmental management system (EMS) compatible with the ISO 14001 international standard. Currently, all group companies operating in accordance with our Environmental Policy have obtained certification with the ISO 14001:2015 standard, which we transitioned to in fiscal 2017.

○ Group company sites that have acquired certification of ISO 14001 registration

Companies in Japan

Company name	Site
DAIHEN Corporation DAIHEN Electric Machine Corporation DAIHEN Engineering Co., Ltd. DAIHEN Techno Support Corporation	Head Office / Juso Business Office Rokko Business Office Mie Business Office Chitose Plant Kanehira Plant
DAIHEN Industrial Machinery Corporation	Tottori Plant
DAIHEN Technology Institute	Oita Plant
DAIHEN Stud Co., Ltd.	Matsudo Plant
DAIHOKU Industry Co., Ltd.	Eniwa Plant
Minami Electric Co., Ltd.	Kagawa Plant
DAIHEN Aomori Corporation	Hirosaki Plant

Companies outside Japan

Company name	Country
OTC DAIHEN Asia Co., Ltd.	Thailand
DAIHEN Electric Co., Ltd.	Thailand
Mudanjiang OTC Welding Machines Co., Ltd.	China
OTC Industrial (Qingdao) Co., Ltd.	China
DAIHEN OTC (Beijing) Co., Ltd.	China
DAIHEN Korea Co., Ltd.	Korea

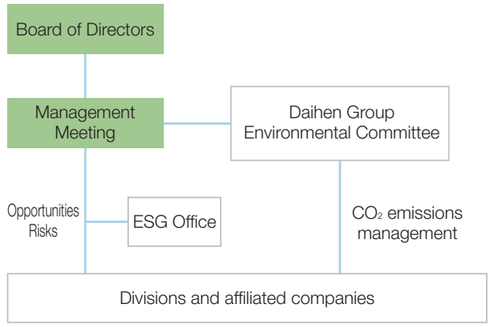
Responding to recommendations under the TCFD framework

We endorse TCFD*1 recommendations and pledge to strengthen our response to climate change and other environmental issues. At the same time, we strive to enhance the disclosure of risks and opportunities associated with climate change in keeping with the framework of TCFD recommendations.

TCFD governance and risk management systems

Recognizing that devising a response to climate change is an important challenge, we have established an ESG Office to analyze company-wide plans and financial impacts based on risks, opportunities, business strategies, and other factors.

○ Climate-related risk management system



Strategy (Key climate-related risks/opportunities and countermeasures)

Regarding the risks and opportunities associated with climate change and appropriate response policies, we assumed the impact of the two scenarios proposed by the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC): the 2°C scenario and the 4°C scenario*2. The following table outlines the key climate-related risks/opportunities and countermeasures. Going forward, we will proceed with analyses of metrics with the potential to have a significant impact on the company, including estimates of financial impact, and will consider reflecting them in our business strategies.

Metrics and targets

The DAIHEN Group is considering specific measures to reduce CO_2 emissions (Scope 1 + 2) by 46% by 2030 relative to fiscal 2013 with the premise of achieving carbon neutrality by 2050 in line with government targets. In addition, we have adopted new targets for CO_2 emissions attributable to the supply chain (Scope 3) and are aiming to achieve them in keeping with our Voluntary Environmental Action Plan.

Key climate-related risks/opportunities and countermeasures

		Type of risk/opportunity	Expected timing*3	Impact	Major initiatives
2°C scenario					
Transition risks	Policies & regulations	Increased procurement costs, procurement challenges, and stagnating production due to deterioration in the supply-demand balance arising from a decreased supply of fossil fuels as a result of regulations, concentration of demand for green power, etc., and uneven demand for materials Increase in procurement costs for fuels and other materials due to the introduction of carbon taxes and emissions trading Increased costs from product design changes and production equipment resulting from stricter regulations	Short to long term	Moderate	• Strengthening R&D related to environmental considerations • Promoting eco-friendly design • Strengthening the supply chain and substituting with alternative parts • Considering the introduction of self-consumption power generation facilities providing renewable energy • Adopting targets based on environmental plans and reducing CO_2 emissions and electricity consumption to meet the targets
	Technology	Increase in R&D costs for eco-friendly technologies Decreased sales due to delays in the development of eco-friendly products	Medium to long term	High	• Strengthening development and improving development efficiency through joint research and collaborations with research institutes, universities, and other companies • Promoting businesses suited for the circular economy*4 • Enhancing disclosure of environmental information
	Markets	Market shrinkage or loss of markets for our products due to innovation Loss of customer trust due to delays in responding and increased financing costs	Medium to long term	Moderate	
Opportunities	Products & services	Expanding business opportunities by leading the development of eco-friendly technologies Growing demand for eco-friendly products Increased demand for capital investment for resilience initiatives	Short to long term	High	Promoting Green Solutions (See pages 5 and 6.) • Developing products that contribute to the adoption of renewable energy (EMS for renewable energy, etc.) • Developing products that contribute to the popularization and expansion of EVs (charging infrastructure equipment, bonding machine for lighter EVs, and other innovations)
4°C Scenario					
Physical risks	Acute	Increased costs of shutdowns and disaster recovery due to intensifying weather disasters and instability of supply chains	Short to long term	High	• Develop a business continuity plan, strengthen the supply chain, strengthen countermeasures for parts procurement risks (such as multiple purchases that may entail design changes)
	Chronic	Spread of disease and damage to employee health Increased cost of countermeasures against flood risk at business locations due to rising sea levels	Medium to long term	Low	• Increasing automation, labor-saving, and energy-efficiency innovations at production facilities, etc. • Considering relocating business offices

*1 The Task Force on Climate-related Financial Disclosures established by the Financial Stability Board (FSB)
*2 The 2°C scenario foresees tightened regulations to curb climate change in an effort to cap the increase in global average temperature to no more than 2°C.
The 4°C scenario foresees a lack of progress in climate change countermeasures resulting in the increased occurrence of abnormal weather due to a rise in the global average temperature of about 4°C.
*3 Short term of three years; medium term targeting 2030; long term targeting 2050
*4 The circular economy envisions economic activity adding value through waste-free design and shared services in addition to the “3 Rs”.

Prevention of global warming

Controlling CO_2 emissions

PLAN

DAIHEN Group
(17 business sites)

Reduce CO_2 emissions intensity
by 2% from fiscal 2020 levels.

DO

We are determined to reduce CO_2 emissions at the 17 sites of the DAIHEN Group, including six plants at production sites outside Japan.

Introduction to initiatives of our business sites

- ○ Replacing equipment with energy-saving products (LED lighting, transformers, high-efficiency chillers)
- ○ Automation of production lines, efficient operation of equipment
- ○ Operation of solar power systems
- ○ Management and energy-saving of air conditioning

CHECK/ACT

We reduced CO_2 emissions by 6.7% from last year by introducing low-energy equipment, automating production lines and following through with other planned actions. In fiscal 2022, we will implement energy-saving measures and take steps in the fight against climate change with a target of reducing emissions by 4% or more from fiscal 2021 levels.

DAIHEN Group (17 business sites)

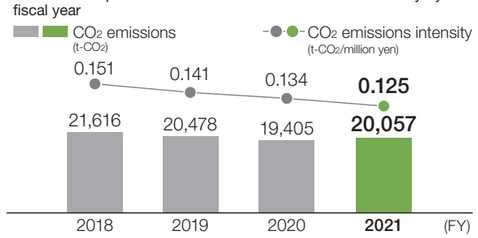
CO_2 emissions intensity relative to fiscal 2020 levels

Reduced by 6.7%

(Fiscal 2021 result: 0.125 t-CO_2/million yen)

Scope of calculation:
DAIHEN Corporation (Juso Business Office, Rokko Business Office, Mie Business Office, Chitose Plant, and Kanehira Plant), production sites of affiliated companies (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant), and production sites outside Japan [Mudanjiang OTC Welding Machines Co., Ltd., OTC Industrial (Qingdao) Co., Ltd., OTC DAIHEN Asia Co., Ltd., DAIHEN Electric Co., Ltd., DAIHEN OTC (Beijing) Co., Ltd., and DAIHEN Advanced Machinery (Changshu) Co., Ltd.]

DAIHEN Group's CO_2 emissions and CO_2 emissions intensity by fiscal year



Preservation of biodiversity

Reduction of water consumption

PLAN

DAIHEN Group
(17 business sites)

Reduce water consumption intensity
by 1% from fiscal 2020 levels.

DO

We are engaged in reducing water consumption at 17 business sites of the DAIHEN Group, including six plants at production sites outside Japan.

Introduction to initiatives of our business sites

- ○ Recycling chilled water for testing using a center chiller and cooling tower
- ○ Adjustments to automatic plant watering systems
- ○ Replacement of faucets

CHECK/ACT

Water consumption was reduced by 7.3% from the previous year by introducing a cooling water recycling system for testing and implementing water-saving activities at each of the business sites. In fiscal 2022, we will continue efforts with a target of reducing water consumption by 6% or more from fiscal 2021 levels.

DAIHEN Group (17 business sites)

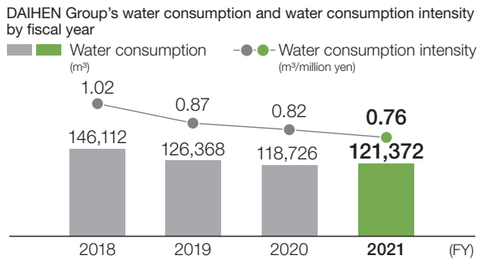
Water consumption intensity relative to fiscal 2020 levels

Reduced by 7.3%

(Water consumption intensity in fiscal 2021: 0.76 m³/million yen)

Scope of calculation:
DAIHEN Corporation (Juso Business Office, Rokko Business Office, Mie Business Office, Chitose Plant, and Kanehira Plant), production sites of affiliated companies (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant), and production sites outside Japan [Mudanjiang OTC Welding Machines Co., Ltd., OTC Industrial (Qingdao) Co., Ltd., OTC DAIHEN Asia Co., Ltd., DAIHEN Electric Co., Ltd., DAIHEN OTC (Beijing) Co., Ltd., and DAIHEN Advanced Machinery (Changshu) Co., Ltd.]

DAIHEN Group's water consumption and water consumption intensity by fiscal year



Waste reduction

Efficient use of resources

PLAN

DAIHEN Group
(11 business sites in Japan)

Reduce waste disposal intensity
(reusable resources excluded)
by 1% from fiscal 2020 levels.

DO

We are determined to reduce waste and use resources effectively at the 17 sites of the DAIHEN Group, including six plants at production sites outside Japan.

Note: Every country overseas looks at waste processing differently, therefore the Plan and Check/Act data tabulated here are just for our 11 business sites in Japan.

Introduction to initiatives of our business sites

- ○ Sorting of waste by material
- ○ Use of steel cases, improvements in packaging methods
- ○ Waste reduction by improving work efficiency and work standardization (Painting work improvement, equipment tuning, etc.)
- ○ Use of returnable shipping containers for exports

CHECK/ACT

We reduced waste by 13.8% from last year by sorting waste and conducting little activities at our business sites. In fiscal 2022, we will continue to address waste reduction with a target of reducing disposal by 3% or more from fiscal 2021 levels.

DAIHEN Group (11 business sites in Japan)

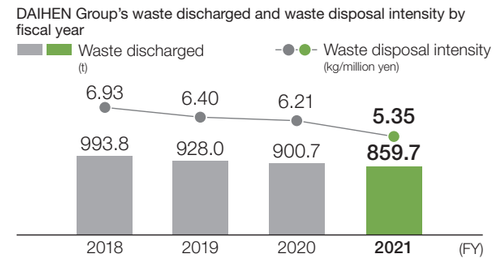
Waste disposal intensity relative to fiscal 2020 levels

Reduced by 13.8%

(Waste disposal intensity in fiscal 2021: 5.35 kg/million yen)

Scope of calculation:
DAIHEN Corporation (Juso Business Office, Rokko Business Office, Mie Business Office, Chitose Plant, and Kanehira Plant) and production sites of affiliated companies (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant)

DAIHEN Group's waste discharged and waste disposal intensity by fiscal year



Air pollution control

Management of chemical substances and control of emissions

PLAN

DAIHEN Group
(17 business sites)

No increase in atmospheric emissions of chemical substances subject to PRTR compared to fiscal 2020 level

DO

We are working to reduce atmospheric emissions of chemical substances subject to the PRTR at the 17 business sites of the DAIHEN Group, including six plants at production sites outside Japan.

Introduction to initiatives of our business sites

- ○ Switched to VOC-free paint and thinner
- ○ Reduced consumption through quality improvement
- ○ Use of organic substance dispersal prevention system

CHECK/ACT

We successfully reduced our emissions of PRTR substances by switching to VOC-free paint and thinner. In fiscal 2022, we will continue efforts with a target of not increasing emissions from fiscal 2020 levels.

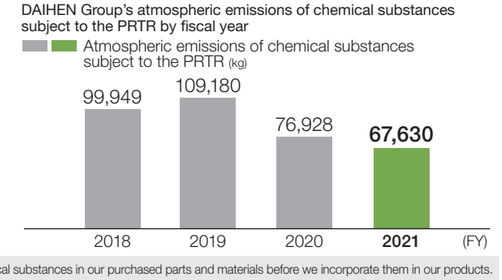
DAIHEN Group (17 business sites)

Atmospheric emissions of chemical substances subject to the PRTR, relative to fiscal 2020 levels

Reduced by 12.1%

Scope of calculation:
DAIHEN Corporation (Juso Business Office, Rokko Business Office, Mie Business Office, Chitose Plant, and Kanehira Plant), production sites of affiliated companies (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant), and production sites outside Japan [Mudanjiang OTC Welding Machines Co., Ltd., OTC Industrial (Qingdao) Co., Ltd., OTC DAIHEN Asia Co., Ltd., DAIHEN Electric Co., Ltd., DAIHEN OTC (Beijing) Co., Ltd., and DAIHEN Advanced Machinery (Changshu) Co., Ltd.]

DAIHEN Group's atmospheric emissions of chemical substances subject to the PRTR by fiscal year

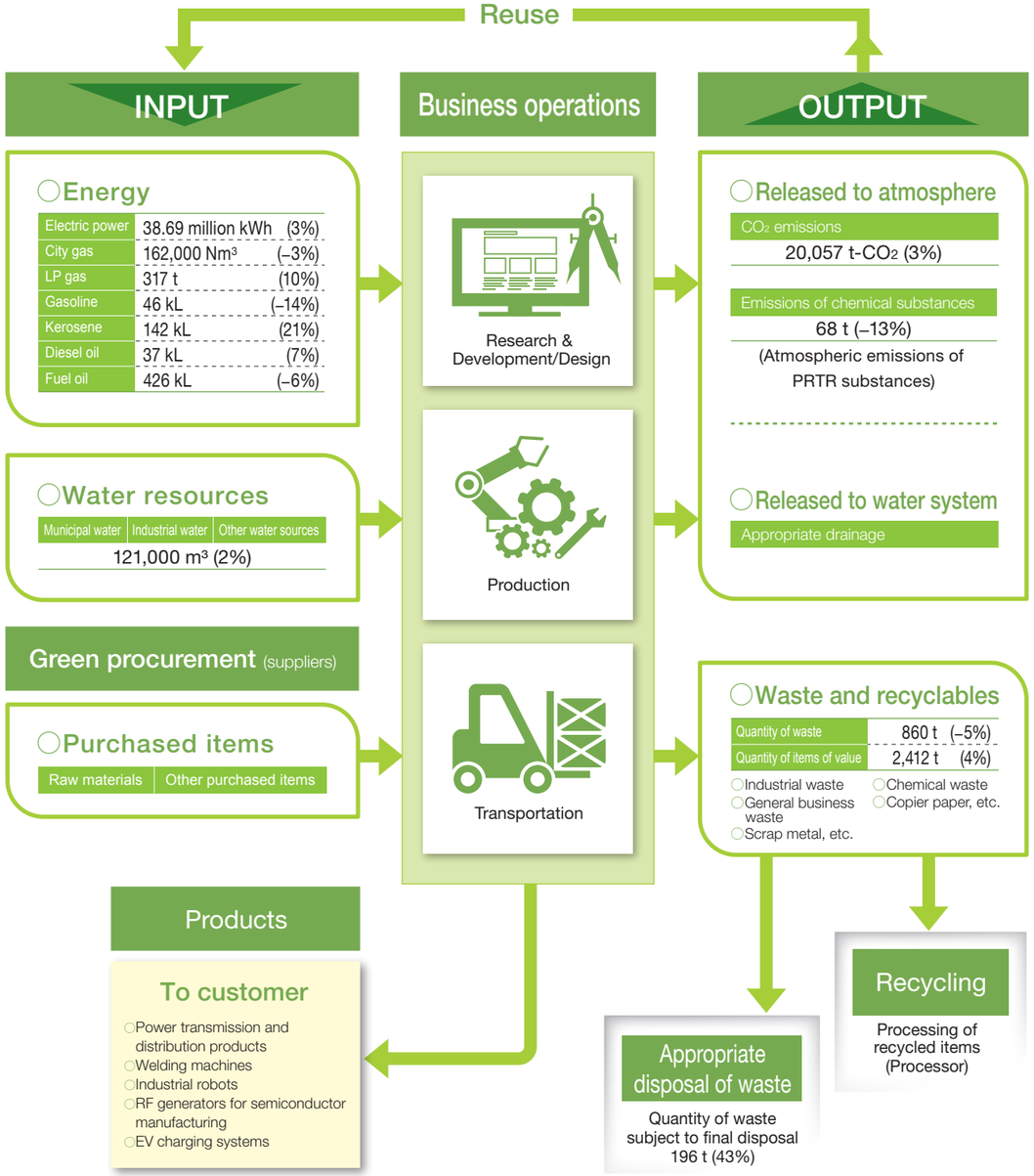


The DAIHEN Group will continue to promote green procurement in order to control the use of chemical substances in our purchased parts and materials before we incorporate them in our products. For details, see "Green procurement initiatives" on page 44.

The environmental impact of our business activities

In addition to determining the environmental impact of our business activities, the DAIHEN Group is working hard to reduce its overall environmental impact from every angle by remaining constantly aware of all phases from planning, development, manufacture and use to discard.

Relation between the DAIHEN Group's environmental impact and business operations



Notes:

- Scope of data: DAIHEN Corporation (Juso Business Office, Rokko Business Office, Mie Business Office, Chitose Plant, and Kanehira Plant) and Group production bases (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant), OTC DAIHEN Asia Co., Ltd., DAIHEN Electric Co., Ltd., Mudanjiang OTC Welding Machines Co., Ltd., OTC Industrial (Qingdao) Co., Ltd., DAIHEN OTC (Beijing) Co., Ltd., and DAIHEN Advanced Machinery (Changshu) Co., Ltd.
- Figures apply to fiscal 2021. Figures in parentheses are relative to fiscal 2020.

DAIHEN Group environmental accounting in fiscal 2021

As a group of manufacturers, the DAIHEN Group engages in an extensive range of environmental initiatives. We adopted environmental accounting because we believe that cost-benefit analysis supports effective and appropriate initiatives. We continue to allot sufficient funds where needed and engage in additional environmental initiatives by expanding the scope of application of environmental accounting.

Note: Environmental accounting is a tool that organizations such as businesses use to identify their environmental loads and the costs and effects of their environmental actions, in order to efficiently promote environmental protection actions.

●Elements of environmental accounting

Accounting period: Fiscal 2021 (April 1, 2021 to March 31, 2022)
Reporting workplaces:
Juso Business Office (including the head office), Rokko Business Office, Mie Business Office, Chitose Plant, Kanehira Plant of DAIHEN Corporation, DAIHEN Group production sites (Tottori Plant, Oita Plant, Matsudo Plant, Eniwa Plant, Hirosaki Plant, and Kagawa Plant)

Note: This report has been compiled according to the DAIHEN Group Environmental Accounting Guidelines. These guidelines are in conformity with the Environmental Reporting Guidelines published by the Ministry of the Environment, Japan.

○Costs of environmental initiatives

- ○ Costs are calculated by separating investment expenditures and expenses.
- ○ Expenses include labor costs, but do not include depreciation.
- ○ Costs including objectives (combined costs) excluding environmental costs are calculated proportionally by our criteria.

(Millions of yen)

Classification		Major initiatives	Investment	Expenses
Business area costs			81	128
Breakdown	1. Pollution control	Maintenance and management of facilities (to prevent air, water, soil, noise or other pollution), etc.	10	19
Breakdown	2. Global environmental preservation	Introduction, maintenance, and management of energy-efficient equipment; introduction of energy conservation initiatives, etc.	31	61
Breakdown	3. Resource recycling	Waste reduction, recycling, externally consigned disposal, resource-conservation initiatives, etc.	40	48
Upstream and downstream costs		Green procurement promotion activities, etc.	0	0
Management activities		Management of environmental preservation organizations, environmental education, information disclosure, construction and maintenance of environmental management systems, etc.	0	91
R&D		Promotion of green products R&D, etc.	177	944
Community activities		Community environmental preservation initiatives, donations to environmental organizations, etc.	0	0
Environmental remediation		Environmental remediation cost, etc.	0	0
Miscellaneous		Participation in industry groups, information exchange meetings with affiliated companies, etc.	0	1
Total			258	1,164

○Benefits of environmental initiatives

Classification	Item (unit)	FY 2020	FY 2021	Difference
Resource inputs	Total energy input (kL in crude oil equivalent)	7,782	7,733	49
Global warming prevention	Greenhouse gas emissions (t-CO_2)	13,944	13,579	365
Waste reduction	Total waste and other emissions (t)	721	663	58
Waste reduction	Waste final disposal amount (t)	5	5	0
Air pollution control	Atmospheric emissions of PRTR substances (kg)	17,451	15,818	1,633

Economic benefits of environmental initiatives

○Monetary benefits

(Millions of yen)

Item	Details of effects	Amount
Income	Business income by sale of valuables resulted from business activities	55

○Estimated effects

(Millions of yen)

Item	Details of effects	Amount
Sale of green products	Power products Top-runner transformers, transformers for power companies, PV inverters, and other products	15,241
Sale of green products	Welding & Mechatronics products Energy-efficient, gas-saving, low-spatter welding machines, welding robots, and other products	4,121
Sale of green products	Semiconductor & FPD related products RF/microwave generators and matching units, wafer/glass substrate transfer clean robots and other products	6,567

Note: The above were calculated using the environmental preservation objectives ratio.

○Estimated major (individual) effects

(Thousands of yen)

Item	Details of effects	Amount
Energy conservation	Reduction in power consumption by replacing plant lighting with LEDs	10,385
Energy conservation	Reduction in power consumption by updating to energy-efficient equipment	10,350
Energy conservation	Automation of fuse production	3,317
Energy conservation	Improved printing on packaging	1,120
Waste reduction	Reducing waste by expanding the scope of application of reusable transformer materials	12,750
Water consumption reduction	Reducing water consumption by the water circulation system	321

Note: Estimated benefits from the current year's investment and initiatives are appropriated as a five-year benefit because the benefits are longer term.

International environmental accounting

Accounting period: Fiscal 2021 (April 1, 2021 to March 31, 2022)
Reporting workplaces:
OTC DAIHEN Asia Co., Ltd. (Thailand)
DAIHEN Electric Co., Ltd. (Thailand)
Mudanjiang OTC Welding Machines Co., Ltd. (China)
OTC Industrial (Qingdao) Co., Ltd. (China)

○Costs of environmental initiatives

Investment	¥0 million
Expenses	¥20 million

Note: Figures exclude labor costs and depreciation.

Juso Business Office

Location: 2-1-11 Tagawa, Yodogawa-ku, Osaka 532-8512 Japan

Principal business: Corporate headquarters; planning and development of compact transformers, plasma generators for semiconductor manufacturing, and more

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	8.2	6.3	7.175	20
BOD	600	350	<1	25.3	20

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	40	<1	6.3	20
Oil	Mineral oil: 5, animal & veg. oil: 30	11	<1	1.2	20

Numerical data on discharge of animal and vegetable oils (limited to 30) applies to the Juso Business Office.

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	16	16	—	—	—
	80	Xylene	17	17	—	—	—
	186	Dichloromethane	243.6	243.6	—	—	—
	265	Tetrahydromethylphthalic anhydride	8568	—	—	—	8568
	296	1,2,4-trimethylbenzene	12.1	12.1	—	—	—
	297	1,3,5-trimethylbenzene	8.1	8.1	—	—	—
	300	Toluene	90.9	90.9	—	—	—
	349	Phenol	7.2	7.2	—	—	—
	384	1-Bromopropane	420	42	—	378	—
Specific Class 1	411	Formaldehyde	19	19	—	—	—

In fiscal 2021, we were able to achieve our reduction targets for waste emissions and water usage. In order to achieve these targets, it was necessary to formulate and implement new reduction measures in addition to maintaining our existing measures. As for waste emissions, since December 2020 we have been disassembling disused spools into their wood, iron, and paper components and separating out the iron and paper as reusable resources. We continued to derive a reduction effect in 2021, which greatly contributed to the achievement of our reduction targets. With regard to water consumption, we struggled to come up with new measures following the installation of chillers, which provided a significant reduction benefit. At the same time, we considered repair methods for water issues at the dish return section of our cafeteria. Focusing on the large amount of water we use for cleaning, we implemented a reduction measure to prevent the outflow of some of this water. This effort reduced our water consumption significantly.

Beginning in fiscal 2022, we intend to introduce new reduction measures, and everyone at the Juso Business Office will collaborate in implementing them.

Toshiyuki Suzuki
Safety and Facility Management Section
General & Judicial Affairs Dept.

Rokko Business Office

Location: 4-1 Koyo-cho-nishi, Higashinada-ku, Kobe-shi, Hyogo 658-0033 Japan

Principal business: Planning, development and production of arc welding machines, resistance welding machines, welding torches, industrial robots, automatic welding systems and clean robots

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	8.6	6.9	7.55	6
BOD	600	430	130	360	6

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	324	49	248.15	6
Oil	Mineral oil: 5, animal & veg. oil: 30	32	4.9	21.4	6

Numerical data on discharge of animal and vegetable oils (limited to 30) applies to the Rokko Business Office.

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	230.8	196.3	—	34.5	—
	80	Xylene	254.2	216.2	—	38	—
	300	Toluene	61.5	52.3	—	9.2	—

At the Clean Robot Division of the Rokko Business Office, we adopted the fiscal 2021 goal of accruing more than 78% of sales from eco-friendly (energy-efficient and low-CO_2-emitting) products. We achieved our target through initiatives intended to expand sales of eco-friendly products to new customers. We approached existing customers and suggested they replace installed equipment with new eco-friendly models. In response to requests from major semiconductor customers, we are also developing new robots in an effort to reduce CO_2 emissions attributable to equipment operation. We are also undertaking product development with the goal of reducing our CO_2 emissions by 7% compared to conventional products by fiscal 2023. Achieving these goals requires overcoming a variety of tough challenges, but we will be pursuing this work in collaboration with our customers.

In order to contribute to the emergence of a society committed to decarbonization, we will continue to develop eco-friendly products while working to minimize environmental impacts.

Chiharu Hosokawa
Sales Dept.
Clean Robot Div.

Mie Business Office

Location: 800 Higashi-ikebe, Taki-cho, Taki-gun, Mie 519-2155 Japan

Principal business: Planning, development, design, production and servicing of large transformers and voltage regulators

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	8.7	6.4	7.5	2
BOD	600	180	<1	65.15	2

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	320	<1	72.85	2
Oil	Mineral oil: 5, animal & veg. oil: 30	29	<0.5	3.1	2

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	170.7	170.7	—	—	—
	80	Xylene	833.4	833.4	—	—	—
	83	Cumene	2.2	2.2	—	—	—
	296	1,2,4-trimethylbenzene	80.8	80.8	—	—	—
	297	1,3,5-trimethylbenzene	17.6	17.6	—	—	—
	300	Toluene	767.3	767.3	—	—	—
	349	Phenol	0.2	—	—	—	0.2
	392	n-hexane	4.2	4.2	—	—	—

At the Mie Business Office, we worked to reduce waste emissions and CO_2 emissions in an effort to minimize global warming.

Continuing our initiatives from last year, we were able to effectively reduce CO_2 emissions by switching to LED lighting fixtures in our plant and replacing the lights in locations that use a lot of electricity. Moreover, by collaborating to reduce power consumption by reducing man-hours, we were able to reduce CO_2 emissions by 60 tonnes annually, which led to an increase in employee awareness.

Regarding the amount of waste generated, we were able to reduce plastic waste by 5.7 tonnes annually by returning the plastic shipping pallets to contractors and by using returnable boxes.

In fiscal 2022, even as we continue our active initiatives, we will improve efficiency by upgrading our furnace tube boiler to a small once-through boiler. As well, we will continue to promote environment-friendly activities such as reducing CO_2 emissions and minimizing the amount of wood used to pack shipments destined for delivery abroad, which have recently been increasing.

Katsuhisa Nakanishi
Regulator Dept.
Power Transformer Div.

Chitose Plant

Location: 770-7 Kitashinano, Chitose-shi, Hokkaido 066-0075 Japan

Principal business: Production and servicing of transformers for power distribution

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	7.7	6.2	6.95	2
BOD	600	94	1.7	25.2	2

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	11	<1	5.5	2
Oil	Mineral oil: 5, animal & veg. oil: 30	<1	<1	<1	2

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	0.66	0.66	—	—	—
	80	Xylene	1.98	1.98	—	—	—
	132	Cobalt and its compounds	0.99	—	—	—	0.99
	186	Dichloromethane	199.81	199.81	—	—	—
	297	1,3,5-trimethylbenzene	5.6	5.6	—	—	—
	300	Toluene	7.04	7.04	—	—	—
	349	Phenol	36.39	36.39	—	—	—
	354	Di-n-butyl phthalate	0.61	0.61	—	—	—
	413	Phthalic anhydride	0.045	0.045	—	—	—

The Chitose Plant is primarily involved in the production of pole-mounted transformers, automatic voltage regulators, and other power distribution equipment. In fiscal 2021, we focused on our environmental targets of reducing CO_2 emissions and the amount of waste generated.

In terms of reducing CO_2 emissions, we reduced power consumption by reducing lighting where it was unnecessary, adopting more appropriate temperature settings for air conditioning, and operating our coil drying furnaces with greater efficiency. As for waste reduction, we have taken steps to reduce waste by classifying materials for recovery as usable materials and by sorting packaging materials used in the workplace into recycled paper and waste plastic and by sorting vinyl into more subcategories. We also sorted discarded copper wire into scrap and reusable categories that are purchased by different operators in an effort to ensure these resources are used effectively.

All employees at the Chitose Plant will continue to work together to reduce CO_2 emissions and minimize waste as part of our focus on environmental protection.

Hitoshi Kamada
Manufacturing Section
Power Distribution System Div.

Kanehira Plant

Location: 6-2-10 Noda, Fukushima-ku, Osaka 553-0005 Japan

Principal business: Servicing of pole-mounted transformers for power distribution

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	7.5	6.7	7.165	50
BOD	600	5	<1	1.75	12

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	3	<1	1.25	12
Oil	Mineral oil: 5, animal & veg. oil: 30	4	<1	1.055	72

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	155.9	109.1	—	—	—
	80	Xylene	824.5	579.1	—	—	—
	300	Toluene	18.9	12.7	—	—	—
	349	Phenol	3.2	3.2	—	—	—

The Kanehira Plant is a transformer refurbishing facility that repairs pole-mounted transformers for electric power companies.

In fiscal 2021, our environmental protection initiatives were focused on updating cubicles and reducing energy inefficiency by minimizing the air conditioning schedule in common areas, which led to a reduction in CO_2 emissions.

Furthermore, in the second half of fiscal 2021, we worked with our customers, Sales Department, and Engineering Department on building an effective parts and resources recycling program in the interests of constructing a business model focused on recycling pole-mounted transformers. Reusable components from the pole-mounted transformer's primary bushings were selected for repair and reuse in new transformers.

As part of our environmental mission at the Kanehira Plant, we will continue to engage in further reuse initiatives with environmental benefits.

Tadanori Matsubayashi
Power Distribution System Div.

Tottori Plant (DAIHEN Industrial Machinery Corporation)

Location: 1041 Azo, Mochigase-cho, Tottori-shi, Tottori 689-1227 Japan

Principal business: Production of welding machines, control system equipment, RF generators for semiconductor manufacturing, and power conditioners for solar power systems

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	8.3	7.5	7.95	4
BOD	600	1.2	<1	0.925	4

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	1.7	<1	1.18	4
Oil	Mineral oil: 5, animal & veg. oil: 30	<0.5	<0.5	<0.5	4

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	7.578576	7.578576	—	—	—
	80	Xylene	8.460576	8.460576	—	—	—
	82	Silver and its water-soluble compounds	8.90505	—	—	8.90505	—
	296	1,2,4-trimethylbenzene	48.03354	48.03354	—	—	—
	297	1,3,5-trimethylbenzene	16.18566	16.18566	—	—	—
	300	Toluene	126.7212	126.7212	—	—	—
	302	Naphthalene	25.2576	25.2576	—	—	—
	392	n-hexane	0.76	0.76	—	—	—
Specific Class 1	305	Lead compounds	692.677	—	—	277.0708	415.6062

At the Tottori Plant, we focused on reducing CO_2 emissions by 2% and water consumption by 1% compared to fiscal 2020 levels. We also improved the energy efficiency of our air conditioning equipment and updated the cooling water circulation systems used for inspection. Our Kunugiwara Factory, which increased its production capacity, achieved our water consumption target partly as a result of the updates to our cooling water circulation system.

Looking to CO_2 emissions reduction, we were unable to achieve our target in light of the low winter temperatures, which resulted in additional heating, and the impact of our increased production system. Next year, the Kunugiwara Factory will switch from kerosene-fueled absorption heating and cooling equipment to air conditioners, so we expect this change will also be effective in reducing kerosene consumption. Meanwhile, our Procurement Department is focused on reducing the power consumption of PC monitors and reducing the temperature setting of air conditioning when workers are away from their desks.

Recently, we have taken steps to reduce the power consumption of printers by converting and storing data such as order review materials in a centralized system after weekly materials requirements planning work.

Looking ahead, all employees will continue to work together to promote environmental protection initiatives to help our business contribute to the emergence of a decarbonized society.

Hirao Akira
Procurement Dept.

Oita Plant (DAIHEN Technology Institute)

Location: 1660-7 Mizoi, Kitsuki-shi, Oita 873-0025 Japan

Principal business:
Development, production and servicing of clean transfer equipment for semiconductor manufacturing; software development for arc welding robots

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	7	6	7	12
BOD	600	9.5	1.4	3.8	12
SS	600	16	<1	6.65	12
Oil	Mineral oil: 5, animal & veg. oil: 30	No measured result for fiscal 2021			

The Oita Plant did not handle chemical substances subject to the PRTR.

In an effort to reduce waste as well as CO_2 emissions, the Oita Plant is working to convert wood chips into a useful resource, reduce power usage charges by converting the plant's lighting to LED fixtures, and saving energy by improving work efficiency.

The Manufacturing Department, to which I belong, is working to reduce power consumption by reducing work hours, and in fiscal 2021, we reduced the work hours required for assembly by conducting a design review of production with a focus on clean robots. The Technical Department solicited and refined the submissions from manufacturing, such as improving ease of assembly and developing a structure that eliminates errors.

In addition, during adjustment and inspection, we confirmed the validity of the inspection report and check sheet, and we were able to reduce power consumption by shortening aging time. We also reduced the labor required for product inspections by introducing automated inspection equipment and reducing the number of inspection items, leading to a reduction in power consumption as a result of the attendant decrease in overtime hours worked.

We will continue to work together to promote and enhance our environmental initiatives.

Seiji Naito
Manufacturing Dept.

Matsudo Plant (DAIHEN Stud Co., Ltd.)

Location: 6-8-12 Minoridai, Matsudo-shi, Chiba 270-2231 Japan

Principal business: Design, production and sale of welding materials and services

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	6.85	6.8	6.825	2
BOD	600	17.7	8	12.85	2
SS	600	12.2	6.7	9.45	2
Oil	Mineral oil: 5, animal & veg. oil: 30	<1	<1	<1	2

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	53	Ethylbenzene	0.59	0.59	—	—	—
	80	Xylene	0.7	0.7	—	—	—
	300	Toluene	2.13	2.13	—	—	—

The Manufacturing Section of the Matsudo Plant has remained focused on reducing its CO_2 emissions as part of its environmental initiatives.

Specifically, regarding the head stud production facilities, we were able to improve productivity and thus contribute to reduced CO_2 emissions. We achieved this by reducing the time required to replace consumable parts by enhancing our aluminum ball press-fit jig and increasing transfer speeds by improving the runout/swing of our long stud conveyor. Regarding production equipment for variant studs, we introduced an inkjet printer for packaging labels, which improved work efficiency by reducing the time required to create and apply manual labels while also reducing waste by eliminating the use of paper-based labels.

In fiscal 2021, we decreased our CO_2 emissions intensity by 5% relative to the preceding year, which was our target. We will continue to work together to implement and contribute to our environmental initiatives.

Hiroshi Otuki
Manufacturing Section

Eniwa Plant (DAIHOKU Industry Co., Ltd.)

Location: 347-11 Toiso, Eniwa-shi, Hokkaido 061-1405 Japan

Principal business: Manufacture, painting and surfacing of transformer casings and sheet metal

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	6.9	6.8	6.875	3
BOD	600	83	76	81	3

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	8	4	5.75	3
Oil	Mineral oil: 5, animal & veg. oil: 30	4.6	2.5	3.25	3

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	1	Water-soluble zinc compounds	456	—	—	456	—
	7	n-butyl acrylate	5.7	5.7	—	—	—
	30	Linear alkylbenzene sulfonic acid	7	—	—	7	—
	53	Ethylbenzene	252.4	251.9	—	—	—
	71	Ferric chloride	5226.5	—	—	5226.5	—
	80	Xylene	1252.7	1252.7	—	—	—
	132	Cobalt and its compounds	1.3	—	—	—	1.3
	239	Organic tin compounds	202	—	—	40.4	161.6
	240	Styrene	8	8	—	—	—
	275	Sodium dodecyl sulfate	8	—	—	8	—
	296	1,2,4-trimethylbenzene	0.9	0.9	—	—	—
	297	1,3,5-trimethylbenzene	147.1	147.1	—	—	—
	300	Toluene	385.5	385.5	—	—	—
	302	Naphthalene	9.1	9.1	—	—	—
	349	Phenol	1.8	1.8	—	—	—
	354	Di-n-butyl phthalate	5.7	5.7	—	—	—
	405	Boron compounds	57	—	—	57	—
	407	Poly (oxyethylene) alkyl ether (alkyl C=12-15)	73.7	—	—	73.7	—
	409	Sodium poly (oxyethylene) dodecyl ether sulfate	3.8	—	—	3.8	—
	412	Manganese and its compounds	114.1	—	—	114.1	—
	420	Methyl methacrylate	5.7	5.7	—	—	—
Specific Class 1	309	Nickel compounds	57	—	—	57	—
	411	Formaldehyde	28.3	28.3	—	—	—

Ours is the only plant in Hokkaido with a plate-working and painting line. We produce pole-mounted transformer cases for DAIHEN's Chitose Plant. We are mainly involved in pressing, welding, thermal spraying, and painting processes.

In terms of environmental initiatives, we have identified two goals: reducing atmospheric emissions of CO_2 and other chemical substances. I am involved in these processes as a quality control manager.

In fiscal 2021, we reconfirmed our quality standards and coordinated with our customers on enhancing quality, focused on reducing excessive rework, and reduced the use of repaired spray cans, thereby reducing emissions of chemical substances into the atmosphere.

Through these initiatives, we expect to achieve our fiscal 2021 targets for reducing emission of chemical substances.

We will continue to contribute to environmental initiatives from the perspective of quality control.

Mikiro Sato
Quality Control Section

Hirosaki Plant (DAIHEN Aomori Corporation)

Location: 1-5-1 Iwaka, Hirosaki-shi, Aomori 036-8073 Japan

Principal business: Manufacture of fuses and power distribution equipment

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	7.6	7.6	7.6	2
BOD	600	53	5.5	29.3	2

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	110	10	60	2
Oil	Mineral oil: 5, animal & veg. oil: 30	2.7	<0.5	1.775	4

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	80	Xylene	0.39	0.39	—	—	—
	134	Vinyl acetate	0	0	—	—	—
	186	Dichloromethane	58.67	58.67	—	—	—
	300	Toluene	492.78	492.78	—	—	—
	405	Boron compounds	381.55	—	—	1.15	380.41

In fiscal 2021, we implemented a variety of measures to reduce CO_2 emissions, with a particular focus on automating our manufacturing processes. In addition to improving our production capacity and reducing overtime by introducing an automated infrared caulking device, we have replaced the lighting in our conference rooms and other facilities with LED fixtures. As a result, we were able to reduce the amount of energy used throughout the plant and achieve our CO_2 emissions reduction target. Moreover, with the introduction of our automated system for processes ranging from resistance inspection to cover installation, we have automated six processes that were previously performed manually by several workers with semi-automatic machinery. This equipment is scheduled to be put into full-scale operation in fiscal 2022.

In fiscal 2022, we plan to increase production of our optical unit substations, which we began to mass-produce in the second half of the preceding fiscal year. Since we expect to improve the utilization rate of the equipment in our plant even more this year, we will continue to implement environmental initiatives by pursuing energy efficiency in an appropriate manner by assessing the status of production and equipment operation after production has increased.

Megumi Miura
Administration

Kagawa Plant (Minami Electric Co., Ltd.)

Location: 15 Nishi-minatomachi, Tadotsu-cho, Nakatado-gun, Kagawa 764-0017 Japan

Principal business: Manufacture, painting and surfacing of transformer casings and sheet metal

○ Quality measurements of drainage water

(mg/L except pH)

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
pH	5.0–9.0	8.6	5.5	6.65	12
BOD	600	270	26	81.05	12

Item	Plant's regulated compliance value	Track record			
		Max	Min	Average	No. of meas.
SS	600	53	5	24.45	12
Oil	Mineral oil: 5, animal & veg. oil: 30	12	<1	3.85	12

○ Amounts of chemical substances subject to the PRTR handled, released or transferred

(kg/year)

Category	Substance number	Substance for inspection	Amount handled	Amount released	Amount transferred		
				Into atmosphere	Into sewage system	As refuse	Used in products etc.
Class 1	1	Water-soluble zinc compounds	655.8	—	—	—	655.8
	53	Ethylbenzene	1988.4	1988.4	—	—	—
	80	Xylene	2456.5	2456.5	—	—	—
	296	1,2,4-trimethylbenzene	535.1	535.1	—	—	—
	297	1,3,5-trimethylbenzene	112	112	—	—	—
	300	Toluene	2387.7	2387.7	—	—	—
	302	Naphthalene	131.7	131.7	—	—	—
	405	Boron compounds	180	180	—	—	—
	407	Poly (oxyethylene) alkyl ether (alkyl C=12-15)	202.4	202.4	—	—	—
	412	Manganese and its compounds	54	—	—	—	54
Specific Class 1	309	Nickel compounds	51.5	—	—	—	51.5
	411	Formaldehyde	1.3	1.3	—	—	—

At the Kagawa Plant, we manufacture and paint a variety of transformer case products. As we did during the preceding fiscal year, we continue to reduce our atmospheric emissions of CO_2 and chemical substances while also reducing waste generation. During this fiscal year, we also began introducing initiatives related to biodiversity.

In order to reduce our CO_2 emissions, we are continuing to investigate and repair leaks of compressed air while comprehensively managing demand during this fiscal year. Regarding our goal of further reducing our electricity consumption by replacing the mercury lamps used for ceiling lighting with high-efficiency LED lighting, we are proceeding with this work in the plant facilities where this task has not yet been completed.

In terms of waste reduction, we are sorting the waste generated during equipment updates and facility renovation work in order to reduce processing costs and the volume of landfilled waste.

In addition, we aim to reduce our water consumption by conducting surveys of our painting workplaces that use a lot of water.

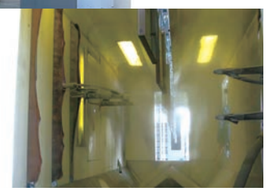
Going forward, all our employees will continue to work together to promote environmental initiatives as we aim to become an eco-friendly plant.

Daisuke Koide
Manufacturing Dept.

Mudanjiang OTC Welding Machines Co., Ltd.

Location: No.18 Xingye Road, Yangming, Mudanjiang, Heilongjiang 157013 China

Principal business: Manufacture of welding machines and parts, etc.



Automated powder coating facility

Interior of automated powder coating facility

"Green Development", the stated policy of the Chinese Government, comports with the "Green Solutions" corporate policy of the DAIHEN Group. We introduced an automated powder coating facility in an effort to promote automation, reduce rework, and reduce consumption of raw materials. The quality of painting has been greatly improved, as we can set an amount of paint to be used that is appropriate for the shape and size of the workpiece while accounting for an appropriate range and speed of vertical movement. Compared to our fiscal 2020 results, we reduced the painting defect rate from 1.21% to 0.63% for pinholes, from 0.77% to 0.63% for impurities, and from 0.25% to 0.17% for exposed iron from incomplete paint application. This approach has also reduced our paint consumption by 100 kg/year. In addition, we were able to reduce the amount of paint conditioning agent (which requires waste disposal) by 35 kg while reducing power consumption by about 1,000 kWh. As a result, we have reduced both our industrial waste and CO_2 emissions. Recognizing the importance of environmental protection, we continue to work toward the emergence of a carbon-neutral society, which is a worldwide goal.

Tan Wujun
Production Engineering Dept.

OTC Industrial (Qingdao) Co., Ltd.

Location: 588 Sanjiang Road Economic & Technical Development Area, Qingdao 266555 China

Principal business: Manufacture of welding machines and parts, RF generators, etc.

Screen printing equipment

UV printer

The solvent-based ink used in the screen-printing process contains volatile organic compounds (VOCs); as a result, it is necessary to dispose of the liquid waste that remains after the screen-printing process as hazardous waste. This process also consumes power because the waste is dried in a drying oven following the screen-printing process.

To address this situation, we introduced a UV printer as an alternative to screen printing after researching all possible alternatives. Because UV printers use water-based inks, they do not generate any waste liquid containing VOCs. Furthermore, after printing, the print is fixed with UV irradiation, so no drying oven is required. By introducing a UV printer, we were able to completely eliminate the 240 kg of hazardous waste generated annually by the screen-printing process. In addition to reducing power consumption by 10,000 kWh annually, we eliminated 1,500 hours of labor per year.

As we continue to reduce the amount of hazardous waste discharged from the plant, we intend to implement ongoing improvements in reducing power consumption to ensure the plant has a low environmental impact.

Liu Song Yan
Manufacturing Dept.

OTC DAIHEN Asia Co., Ltd.

Location: 60/86 Moo19, Navanakorn Industrial Estate Phase 3, Tambol Klongnueng Amphur Klongluang, Pathumthani 12120 Thailand

Principal business: Manufacture and sale of welding machines, cutting machines and parts in Southeast Asia, Oceania and India

The OTC DAIHEN Asia Plant

Plastic tray

Our company is located 50 km north of Bangkok, the capital of Thailand. We perform integrated production from parts to complete products with a focus on welding/plasma cutting torches and peripheral devices for robots. In fiscal 2021, we conducted a comprehensive inspection of the water and air pipes throughout the plant to check for water and air leaks. By continuing to conduct once-weekly water leakage inspections and twice-weekly air leakage inspections, we have been able to respond quickly whenever a leak has occurred. As a result, we were able to reduce annual expenses by 180,000 THB (660,000 yen). We also devised a way of reusing the plastic trays utilized for conveying parts after processing. In the past, we discarded plastic trays that became unusable due to oil staining. However, after cleaning them and reusing the trays for conveying parts, we reduced the amount of plastic waste generated and saved 38,000 THB (140,000 yen) annually.

OTC DAIHEN Asia will continue to adhere to the environmental policy of the DAIHEN Group, increase environmental awareness in all departments, and strive to reduce power consumption in the plant while taking steps to improve the working environment.

Kharunart Janthawong
Project Department

DAIHEN Electric Co., Ltd.

Location: 258/259 Moo 6 Thamboon Thasa-an, Bangpakong Chachoengsao, 24130 Thailand

Principal business: Manufacture and sale of power transformers in Thailand

In-house testing of transformer

We were the first company in Thailand to produce large-class power transformers. Our contribution to society is to supply such products to power companies in Thailand and other customers around the world. As one of our environmental initiatives during the past year, we sought to reduce our CO_2 emissions by addressing energy conservation. For example, we use a brazing process to connect copper wiring inside our transformers. This process requires a heat source to melt wax, but the heat source cannot employ open combustion because many combustible materials are present inside the transformer. For this reason, an electric resistance welder is used that consumes a significant amount of power, but it also allows for fine control of the heating range. Consequently, brazing is a specialized process that can be undertaken only by qualified personnel. However, we have improved this process by employing an approach that uses compression for a mechanical connection, thus reducing our power consumption, simplifying the task, and reducing the labor required.

The reduction in power consumption accruing from this innovation is about 99%. We will continue to use creativity and ingenuity to reduce our environmental impact.

Sakda Wongprakob
Manufacturing Department

DAIHEN OTC (Beijing) Co., Ltd.

Location: No. 5, Leyuan South 2nd Road, Yangi Economic Development Zone, Beijing 101407 China

Principal business: Manufacture of pad-mounted transformers

LED lighting in winding room

Returnable box for JIS transformers

Snow removal

DAIHEN Beijing seeks to meet its corporate social responsibility by reducing its environmental impact. In fiscal 2021, the following were our main environmental initiatives.

- Increasing the use of LED lighting fixtures in an effort to address the risk of global warming: In order to ensure a comfortable working environment and reduce power consumption, we switched to LED lighting fixtures in the coil winding room this year. As a result, 35% of the lighting in the office has been converted to LED fixtures.
- Reducing waste by expanding the use of returnable boxes for exporting JIS transformers: By adding returnable boxes that can be shared among different models of varying capacities, we expanded the scope of use of returnable boxes and achieved a reduction in packaging waste.
- Participating in local environmental activities: Many employees actively participate in local cleanup activities. In winter, we frequently remove snow from the roads around our offices, thereby reducing the use of snow-melting agents, which can have a significant environmental impact.

DAIHEN Beijing is proactively addressing environmental protection, an issue that is gaining increasing traction in China.

Xiao Wei
General Affairs Dept.

DAIHEN Advanced Machinery (Changshu) Co., Ltd.

Location: No.17 Maqio Factory Area, Riverside Industrial Park, Jiangsu Changshu Economic Development Zone, Changshu City, Jiangsu 215513 China

Principal business: Manufacture, sale, and servicing of semiconductor, LCD, and solar battery manufacturing equipment and industrial robots

Reuse of empty boxes (crates)

In 2021, we introduced a new supplier for parts setup. We switched from a distant supplier to a one located within 2 hours by dedicated truck. This initiative helped us achieve our twin goals of cost reduction and faster service. This process has led to improvements not only in terms of cost, but also in terms of environmental protection. Previously, the large aluminum parts were packed in sturdy crates that were discarded upon delivery because the crates were damaged as a result of the long shipping distances. Now, the crates remain mostly undamaged due to the short shipping distance from the nearby supplier. We began using them as returnable crates, which enabled us to greatly reduce the amount of materials used to make the crates.

Reduced use of packaging materials for crates in fiscal 2021

- Target: 42 units
- Impact: 90 kg/unit
- Annual benefit: 3780 kg

We remain dedicated to society's commitment to sustainable development through our environmental initiatives.

Huang Jianlin
Manufacturing Dept.

Earning the confidence of our customers by providing high-quality goods and services

DAIHEN's quality policy is just the beginning of concerted efforts to provide customers with products and services they trust and like.

Earning the confidence of our customers

Quality policy

As reflected in our corporate philosophy of "Reliability & Creativity" and our founding spirit of "Superior Quality, Reasonable Prices, and On-Time Delivery", DAIHEN has been striving since its establishment to provide customers with reliable products and services. A key part of that has been a strong emphasis on quality.

We have earned our customers' trust because a common mindset that settles for nothing less than the "Best Quality" is shared amongst everyone on the DAIHEN workforce. In order to retain that trust, DAIHEN has adopted a quality policy and is continuously taking steps to heighten quality in cooperation with our suppliers.

Quality policy

In accordance with our founding spirit and corporate philosophy, we are winning the confidence of our customers by providing outstanding products.

Each division is addressing "customer satisfaction" as an indicator of customer trust. We intend to further increase our efforts in this regard.

Words from the frontline of quality control

Earning the trust of our customers

Kazuhiro Nagai
Manager, Quality Control Dept.
Power Transformer Div.

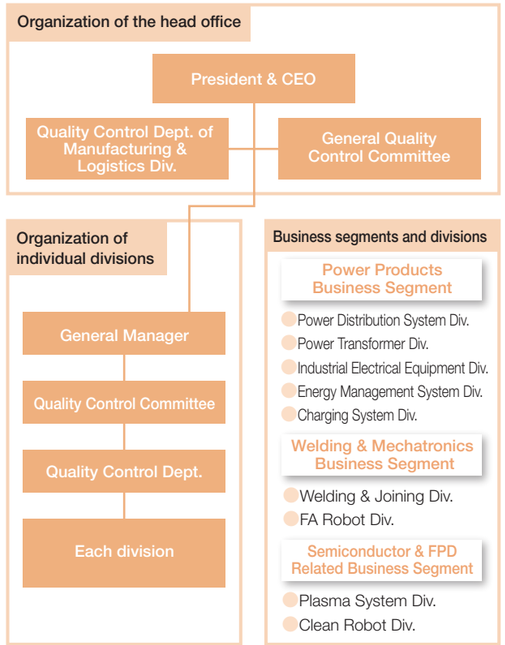
The Power Transformer Division manufactures large-class transformers for installation at power plants and substations. These units are supplied to all electric power companies as well as other consumers. If a large-class transformer stops operating due to a malfunction, it can have a huge impact over a wide area, seriously affecting the social infrastructure and industry. Therefore, our production efforts are undertaken with a sense of mission to continue providing products of the highest possible quality so that customers can use them with peace of mind for long periods.

Currently, we are working to reduce environmental impacts with the goal of contributing to the social goal of decarbonization while developing and expanding sales of products related to renewable energy generation. Going forward, we will continue to provide "unique products" on the foundation of DAIHEN quality. Moreover, we will continue to improve our quality level as a means of earning even greater customer trust.

Quality assurance system

At DAIHEN, there is a separate quality management system for every business segment and a Quality Control Committee that reports and discusses quality issues in every division. There is also a General Quality Control Committee that discusses problems common to all divisions, as well as corrective solutions for serious quality issues that arise in a given division. Decisions are fed back to the all divisions.

○ Quality assurance system



Response system for significant quality problems

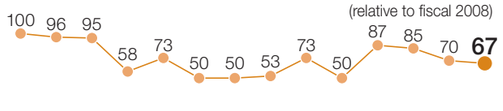
If a product of the DAIHEN Group were to cause or potentially cause physical harm to a customer or their property, or if minor trouble were to impact a number of customers, we would treat it as a "serious quality issue" and muster a response team. The response team would quickly collect information, troubleshoot the problem and devise and implement corrective measures. We also have a system in place to share the case information across the group in order to prevent any reoccurrence.

No one has ever filed a product liability suit against our company because of a non-conforming product. Nevertheless, it is very important that we root out any significant quality problems to win the confidence of our customers. The entire group, therefore, is always making efforts to discover and correct quality problems.

Enhancing customer satisfaction

In order to raise the quality bar further, the DAIHEN Group has been promoting a series of 3-year plans beginning with the Absolute Quality Initiative that spanned fiscal 2006 to 2008. This was followed by the 3-year Quality Spiral Initiative (abbreviated as the QS Initiative) that was launched in fiscal 2009 with the aim of further enhancing our quality level. For the three years starting in fiscal 2012, we implemented the New Quality Spiral Initiative that focused on minimizing risks. Furthermore, in fiscal 2013, we went back to the basics and steadily implemented the PDCA cycle to correct and prevent reoccurrence of individual quality problems and risks. At the daily morning meetings in fiscal 2021, we confirmed what is known as the "3 H's" (after the Japanese terms for "first time, change, and first time in a long time") and shared changes to the "5 M's" (manpower, machines, materials, methods, and measurements) while addressing countermeasures and work guidance. As a result, the ratio of total defective losses to sales has been gradually improving. Assuming a defect index of 100 for fiscal 2008, the result for fiscal 2021 was 67. In order to gain the firm trust of our customers and improve our customer satisfaction levels, we will continue to collaborate on strengthening our prevention initiatives throughout the company.

○ Trend in total cost of defect loss ratio



Certification of ISO 9001 registration

Since 1995, the divisions within the DAIHEN Group have sequentially acquired ISO 9001 certification of their quality management systems. Currently, all divisions and overseas production sites other than those that were newly established are ISO 9001-certified.

Acquiring certification of ISO 9001 registration expands our foundation for doing more than just meeting customer requirements; it testifies to our commitment to comply with the original purpose of the ISO 9001 standard, which is to continuously improve our structure in order to ensure customer satisfaction.

○ ISO 9001-registered divisions and group companies

Fiscal year	Divisions, group companies
1995	Welding Products Division (Now Welding & Joining Division)
1996	Power Transformer Division
1997	Power Distribution Products Division (Now Power Distribution System Division)
1998	Mechatronics Division (Now FA Robot Division)
1999	Power & Control System Division (Now Industrial Electrical Equipment Division)
	DAIHEN Electric Co., Ltd.
2001	Semiconductor & FPD Related Business Segment (Now Plasma System Division and Clean Robot Division)
	Mudanjiang OTC Welding Machines Co., Ltd.
2004	OTC DAIHEN Asia Co., Ltd.
	OTC Industrial (Qingdao) Co., Ltd.
2009	DAIHEN OTC (Beijing) Co., Ltd.
2012	DAIHEN Advanced Machinery (Changshu) Co., Ltd.
2014	DAIHEN VASTROJ welding cutting and robotics d.d.
2016	DAIHEN Stud Co., Ltd.
2018	DAIHEN Korea Co., Ltd.

Quality control exclusive training initiative

As part of a greater effort to maintain and improve quality, quality management training is imparted throughout the DAIHEN Group in Japan and abroad with a particular focus on developing human resources.

The curriculum is designed to teach participants how to use and practice quality control methods, strengthen activities for preventing unexpected troubles and recurrences, and apply logical thinking processes to problem-solving. Participants train in QC methods, failure analysis, and more. The program additionally teaches statistical analysis in relation to product design, development and manufacturing as a basis for developing ISO 9001 auditors who can improve product safety standards, enhance systems and processes, and raise the bar of our quality management systems.

Lecture on advanced training in the QC method

Skill improvement seminar for the ISO 9001 Internal Auditor Course

Lecture on statistical methods

Small group activities

In the DAIHEN Group, many business activities directed at attaining policy objectives are conducted in small groups from a top-down approach (PS activities*). This kind of platform helps us to find better ways to look at and execute work, make improvements and efforts, and maintain and improve the quality of our products and services, because we can condense and piece that process together with a logical and scientific train of thought.

In support of these activities, we train each employee in the fundamentals: QC perspectives and approaches, seven QC tools, seven new QC tools, problem-solving procedures, target-attainment procedures, report-writing and the like. We also visualize the progress of our small group activities on our intranet while keeping everyone informed of the results of our initiatives. In this way, we are upgrading our job control and improvement capabilities while improving quality awareness.

Since fiscal 2021, we have been holding debriefing sessions on the theme of PS activities as a new initiative to revitalize small-group activities.

* PS activities: Policy-based Small group activities

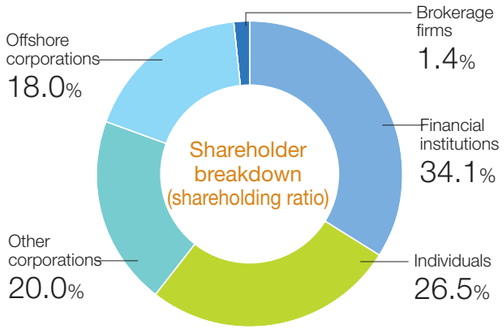
To win the confidence and meet the demands of shareholders

In order to meet the expectations of shareholders and investors and justify their confidence in us, we remain committed to the sound and transparent management of our business. Moreover, we are dedicated to business development and are engaged in dissemination of accurate and pertinent information.

Basic policy

The policy of the DAIHEN Group is to implement the corporate philosophy characterized by the keywords “Reliability & Creativity”. We are upholding this policy by faithfully and honestly providing safe, high-quality products and services that meet the needs of our customers while continuing to demonstrate reliability through our business operations. Moreover, while remaining dedicated to creating value and developing markets with new products and innovative technologies, we are diligently contributing to social development.

In addition, by implementing comprehensive investor-relations initiatives to provide information on our Group’s business and financial circumstances as required for sound investment decisions, we intend to earn the ever deeper confidence of shareholders and investors.



As of March 31, 2022

Increasing our corporate value

In today’s business world, a company can no longer differentiate itself from competitors by pursuing just QCD* alone. As we see it, intangible assets — human resources, technologies, sales routes, intellectual properties, environmental protection, etc. — enhance corporate value and provide a basis for maintaining a competitive edge and achieving sustainable growth. In order to enhance the value of our intangible assets, we invest time, money and efforts into developing human resources, building patent networks around our core technologies and bettering relations with our stakeholders, while improving our internal cohesion and networking so that we are stronger as a group.

*QCD: Quality Cost Delivery

Paying good dividends

DAIHEN has adopted the important policy of continually paying a good dividend to our shareholders. We are committed to maintaining this policy of returning profits to shareholders subject to our profitability, financial circumstances, and the future development of our business.

○ Five-year record of dividend payments

Fiscal year	2017	2018	2019	2020	2021
Dividend (in yen)	75	80	85	90	110
Payout ratio (%)	27.6	32.4	31.6	23.6	24.7
Dividend payout ratio against three-year average profit (%)	27.9	31.2	32.2	30.0	30.1

Notes:
- DAIHEN executed a reverse stock split of 5 shares into 1 on October 1, 2018. For comparative purposes, dividend amounts are shown assuming the reverse stock split was executed in fiscal 2015.
- We set a payout ratio of 30% against the 3-year average profit as a target in our 2020 medium-term business plan. Our payout ratio against the 3-year average profit in fiscal 2021 is 30.1%. In fiscal 2022, we revised our shareholder return policy by adopting a dividend payout ratio of at least 30% of the single year’s profit.
- Dividends for fiscal 2019 include a “100th Anniversary Commemorative Dividend” of 5 yen.

○ Stock data

As of March 31, 2022

Number of shareholders	9,292
Shares outstanding	27,103,291

Information disclosure

We disclose all information required by legal disclosure standards. In addition, if we determine that it is necessary to disclose additional information to increase shareholder understanding of our company, we will disclose such information immediately and accurately through various media, even if disclosure of such information is not required by any laws or regulations.

Moreover, we will continue to proactively release information about investor relations activities through our corporate website (https://www.daihen.co.jp) and IR conferences for institutional investors, etc.

As a partner to our customers, we seek to achieve mutual prosperity and outstanding customer satisfaction.

To provide our customers with excellent products, we are promoting green procurement while also ensuring fair and equitable trade with our suppliers in the interests of mutual development.

Basic policy for material procurement

To meet customer demand by providing valuable products and services to our customers, we depend on the cooperation of suppliers offering excellent products and technologies. The DAIHEN Group believes that one of the most important elements of manufacturing competitive products is the procurement of high-quality materials. Therefore, on our website, we always list the items we seek to procure. In addition, we have adopted a basic policy for material procurement so that we can maintain and develop partnerships with our suppliers.

— Basic policy for material procurement —

Offering openness and fairness of opportunities

We openly provide opportunities for all our suppliers to participate in trade, regardless of nationality, region, business scale, or business experience.

Fair evaluation

We adhere to principles of competition as the basis on which we select suppliers. We generally take management reliability and technical development capability into consideration and make a fair evaluation in addition to evaluating quality, price, and delivery date.

Mutual development

We maintain sound trade relations based on mutual trust with suppliers and strive to support reciprocal corporate development.

Compliance with the law

We faithfully meet our contractual obligations with our suppliers, negotiate according to laws and regulations, and maintain healthy business practices.

Our policy is not to use conflict minerals that serve as a source of funds for warlords who violate human rights.

Communication with our suppliers

In order to promote mutual understanding with our suppliers, we invite them to policy briefings where we explain our business and procurement policies and the annual plans of our various business divisions. We also take this opportunity to commend those suppliers who posted exceptional productivity during the preceding fiscal year.

Moreover, we conduct a survey of how satisfied our suppliers are of their business dealings with DAIHEN and their thoughts of our procurement policy and practices. In turn, we apply this information back to our procurement activities in order to improve business processes and build stronger relations with our suppliers.

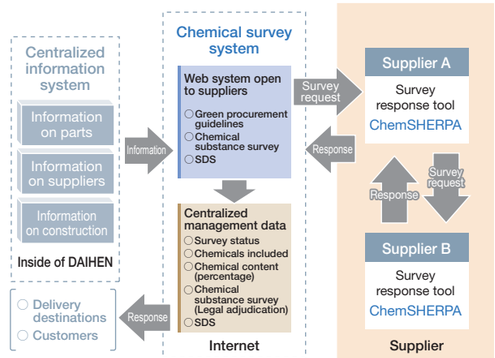
Release of our Declaration of Partnership Building

Following the introduction of our Declaration of Partnership Building, we will continue to build new partnerships by promoting collaboration and mutual prosperity with suppliers across the supply chain and with other businesses that are creating value.

Green procurement initiatives

In step with global trends in chemical management and the push for standardization inside Japan, we revised the Green Procurement Guidelines of the DAIHEN Group into a seventh edition that brought our management processes closer in line with the newly unified chemSHERPA platform for sharing information on chemicals contained in products. Moreover, to promote green procurement, we also upgraded the system we had been using to investigate chemical substances so that we could use data across our global supply chains and share environmental data. The new system has made our environmental assessments faster and easier, and given us yet another tool for making environment-friendly products in the DAIHEN Group.

○ Outline of green procurement and surveys taken

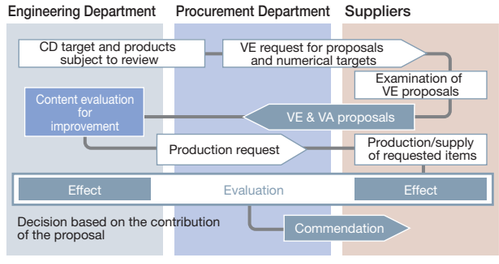


Working with our suppliers to raise productivity

The DAIHEN Group aims to ensure quality and improve market competitiveness while streamlining our manufacturing processes and enhancing ease-of-manufacturing by actively implementing cost reductions focused on Value Engineering/Value Analysis (VE/VA) proposal initiatives.

Through these activities, we jointly participate in improvement proposals together with those who place and receive orders, and we share the results with both parties. We believe this is a desirable way to operate our business while earning reasonable profits.

○ The flow of VE and VA proposals



Establishing an active workplace and improving our personnel system by providing rewarding work

We are establishing an active workplace and improving our personnel system by providing rewarding work. Moreover, we are supporting our employees' choice of varied working styles.

"Inspiring" and "motivating" our workforce

The underlying principle of our personnel system is to "inspire" and "motivate" each and every employee to go beyond what is expected of the role he/she plays in helping the company achieve its objectives. This is done by considering suitability and capabilities in job assignments, developing aggressive target-management skills, clarifying performance evaluation criteria, and providing fair and acceptable treatment. When "inspired" and "motivated", our employees are more likely to demonstrate their skills and feel satisfied with what they are doing, which in turn should translate into better performance and corporate growth. We additionally think that will improve the work environment, which will then further "inspire" and "motivate" our workforce, creating a positive "personnel cycle" that benefits both the employee and the company.

Awarding employees with a 3rd bonus for efforts

The DAIHEN Group is adamant about balancing returns amongst its stakeholders. Since employees are stakeholders, too, a "3rd bonus" is paid in addition to regular bonuses to reward employees for their efforts in product development and cost reduction that enable the company to attain financial targets.

Conditions for 3rd bonus	When 5% or more increase in operating income over the previous year: 1 month's pay if ¥8 billion or more to 2 months' pay (max.) if ¥12 billion or more

Career Autonomy Program

Because of social changes and newly accepted work patterns, corporate development going forward is underscored by the thinking that an organization grows only as much as the people it employs grow. We have long believed that our employees are and should be in charge of their own personal growth with a forward-looking attitude about learning and experiences that require and by liking one's job and going about it enthusiastically, their growth will lead to better results. This is why we put so much effort into our human resource development programs.

As one of these, we have introduced a career autonomy program for young employees who are within their first three years with the company. Unlike rank-specific training, this is not intended to impart the knowledge required or to foster awareness for each position or role. Instead, this is a program in which young employees are encouraged to think seriously about their own work objectives, what they want to achieve, what they want to become, and what they value. They are then offered opportunities such as on-the-job and off-the-job training as well as goal management interviews to reflect what they have noticed in their daily activities.

This is a medium-term initiative that extends throughout the first three years after the employee has joined the company. During that period, the employees receive substantial support from their superiors. We believe that guidance and development as part of one's daily work can make one a more effective employee.

Group discussion as part of the Career Autonomy Program

Developing new recruits as a workplace activity

A "mentoring program" has been introduced in order to systematically guide new recruits in the right direction and get them up to speed in their assigned workplaces as quickly as possible. Rather than managers or supervisors, mentors are someone who can steer the new recruits through daily tasks and counsel them on life issues from a common ground approach. The primary purpose of the program is to help the new recruits settle into their jobs as soon as possible and promote their growth so that they can execute their work smoothly.

To make the program more effective, not only is one mentor assigned to each new recruit but also the entire workplace is tasked with aiding the new recruits. This idea of an entire workplace developing its new recruits is intended to create a constructive atmosphere in which everyone instinctively assists the new recruits in the same way they themselves received help and guidance when they were new.

Mentorship training

Supporting our employees' diverse lifestyle choices

New lifestyles demand new workstyles. At DAIHEN, we understand that.

Support for balancing work with childcare and nursing care responsibilities

We have improved the employment options for individuals with small children or family members who need looking after so that they can continue to work while caring for loved ones. In order to respond more flexibly to those with childcare and nursing care needs, we have established systems that exceed the regulatory requirements, including the introduction of reduced working hours and four-day workweeks. Further, to maintain compliance with the April 2022 revisions to the Act on Childcare Leave/Caregiver Leave, we put in place a system that confirms an employee's intention to take childcare leave, and we made all our employees aware of the system. Not only are these systems in place but we are also reshaping workplace environments so that employees can easily make use of these systems. We will continue to look for ways to support workstyles that allow for the things that our employees value and want to prioritize.

Support for study abroad and business startups

Healthy life expectancies in Japan are the longest in the world and are flirting with the 100-year mark. To make the most of those good years, it is wise to put a life plan with future goals on paper and develop a workstyle that agrees with one's personal values and priorities. That most likely involves challenging oneself, which begins by finding an interest one would willfully pursue. It might be studying abroad to gain certain qualifications or skills, or launching a business in something you are good at and are motivated to take a step further. At DAIHEN, we have programs in place to support employees who want to embark on new challenges.

Long-term disability insurance

Health is a fundamental component of corporate life. Being healthy allows one to choose a workstyle that agrees with one's values and priorities. However, if stricken with an illness or infirmity that causes one to miss work, one may no longer be able to support the lifestyle he/she desires and plans he/she had may have to be changed. DAIHEN's corporate insurance plan gives employees access to proper medical care and pays compensation for lost wages due to illness or infirmity to a degree that permits one to maintain a certain lifestyle.

Workstyle reform and motivating workplaces

For an individual to grow personally and lead a rewarding life, it is important to work efficiently and use the time gained therefrom to better one's skills and knowledge, and to make one's life more fulfilling. To help our employees balance work and life choices, we are always looking for ways to develop a productive mindset that knows not to waste time and reshape the workplace into a motivating environment where employees can perform to the best of their abilities.

Productivity enhancements with innovative business processes

All across the DAIHEN Group, Loss Cutting Initiatives are replacing manual jobs with automation and reducing overtime work. RPA is also being constructively introduced to automate repetitive clerical tasks.

Efforts to manage work time

Activities are underway to spur employees to consciously manage their work time such as to declare the first day of the week "No Overtime Day" and require everyone to leave work at the same time, as well as shutting all lights off at a set time every day in offices.

Financial aid for self-improvement

At DAIHEN, we encourage our workforce to obtain qualifications that they can apply to their jobs and have a financial aid program that can cover those expenses in order to incentivize them to learn.

Health and well-being of our employees and their families during the COVID-19 pandemic

Since 2020, the entire planet has been engulfed in unprecedented crisis caused by the worldwide spread of COVID-19. Countries everywhere have introduced countermeasures that have drastically changed the way people work and live. DAIHEN implemented the following actions in placing top priority on the health and well-being of our employees and their families.

1. Promoted working from home
   The first step to promoting working from home was to prepare an environment for that (adjusted content and workflows, increased communication terminals with security measures, stronger network, etc.) in sales, service, design and development, and administrative departments.
2. Used web-based meeting platforms
   Web-based meeting platforms were upgraded and used to avoid the risk of transmission from in-person meetings within the group or with suppliers and customers.
3. Enforced health measures
   A system was set up where employees measured their temperature before heading to work and when they arrived at the office/plant, and would immediately see a doctor if feverish or exhibiting other symptoms.
4. Measures for preventing transmission when commuting to work
   To avoid crowds during the commute to/from work, employees were encouraged to drive and bike to work, as well as to stagger commute time. Moreover, shuttle buses were rented to reduce the chances of person-to-person contact.
5. Measures for preventing transmission in the workplace
   Various measures were taken to prevent the risk of transmission including requiring hands be sanitized when arriving at the office/plant, installing partitions on desks and in meeting rooms and cafeterias, limiting the number of persons in meeting rooms, elevators and smoking rooms, ventilating indoor spaces often, using space sterilizers, staggering mealtimes at cafeterias, and more.
6. Measures for those infected with COVID-19
   If someone became infected with COVID-19, strict contact rules recommended by public health authorities were applied. This included ordering all persons that potentially came in contact with the infected person to work from home and get a PCR test, in order to prevent spread.
7. Awareness education for employees
   Posters about social distancing, wearing masks, washing and sanitizing hands, avoiding business meals and entertainment were put up around workplaces to constantly remind our employees to protect themselves from the virus.
8. Early availability of vaccinations in the workplace
   Placing the highest priority on protecting the health and safety of employees and their families, we quickly entered into discussions with relevant ministries and agencies and implemented workplace vaccinations at an early stage.
   (Initial rollout: July 2021, 2nd rollout: August 2021, 3rd rollout: March 2022)
   Note: Details are provided on page 48.

Promoting employment of persons with disabilities

Daiki Corporation became a special subsidiary of DAIHEN in 1983. Daiki is now promoting employment of persons with physical and mental disabilities while improving the working environment for these individuals.

○ Percentage of persons with disabilities working at DAIHEN

Corporate Action Plan under the Act on Promotion of Women's Participation and Advancement in the Workplace

We established an exploratory committee of labor and management representatives to find ways for women to demonstrate their skills and play more active roles in the workplace. They formulated and submitted the below "Corporate Action Plan" to the Equal Employment Office of the Osaka Labor Bureau. We will take more action like this going forward so that women are given the same job opportunities as their male counterparts.

1. Objective
   Build workplaces where women can demonstrate their skills and play more active roles.
2. Period
   June 1, 2021 – May 31, 2024 (3 years)
3. Targets
   (1) Raise the percentage of women amongst new recruits (graduates and midcareer transfers) to 10% or higher.
   <Activities>
   · Create more opportunities for women employees to be involved in hiring activities and meet with college students, especially women students.
   · Work with departments on preparing and implementing training plans that will lead to women playing a more active role in the workplace.
   · Periodically collect opinions from women employees and extract and solve issues.
   (2) Raise the percentage of employees who take annual paid holidays to 70% or more.
   <Activities>
   · Use the company's intranet and training programs to create a corporate atmosphere that makes it easy to take holidays. (Stage awareness seminars for superiors, etc.)
   · Promote improvements in workplaces that have a low percentage of employees taking paid holidays.

Our health and safety initiatives

Group Policies

- Safety is the underlying pretext of our corporate prime objective of achieving “simultaneous contentment for all”.
- We will work together as a united Group to promote our corporate policy of “placing top priority on health and safety”.
- Our managers and supervisors take the initiative in promoting health and safety in the workplace with a commitment to preventing occupational accidents. They achieve this by thoroughly implementing health and safety initiatives with the engagement of all employees, complying with all relevant laws and regulations, and fostering an awareness of the self-management required to protect one's own health and safety, thereby contributing to a secure and healthy work environment.

Prioritized activities

Occupational Health and Safety Management System established

In order to improve and streamline the occupational health and safety management system initiatives that we have been implementing to date, we established an occupational health and safety management systems at our Juso Business Office. This has enabled us to build on the ISO 45001 system we established in 2018.

Continued to promote safety against serious risks

Following our workplace risk assessments, we promoted the concept of intrinsic safety for situations associated with risk level III or higher and reduced serious risks in the workplace. As part of this process, we confirmed the effectiveness of cases handled under administrative measures.

Visual indicator of a hazard in the workplace

Extracted and took measures against hazards that could develop into serious accidents

In response to the occurrence of accidents within the Group and fires at plants operated by other companies, we conducted comprehensive cross-sectional inspections at all sites in an effort to prevent similar accidents. In addition, safety patrols conducted by outside professionals confirmed the status of measures adopted against previous accidents and verified whether any sources of serious accident risk were present.

Safety patrol with outside professionals

Providing health and safety training

In order to increase awareness of risk and enhance safety, we have been offering a wide range of health and safety training opportunities. In addition to providing hazard prediction training and risk assessment training to new employees and unskilled employees, we provide safety training to managers and supervisors. Moreover, as an initiative to address mental health issues, we provide self-care training and training in care by managers and supervisors in an effort to improve the workplace environment.

Contributing to safer driving of company vehicles

As a means of strengthening our driver training for operators of company vehicles, we provide “traffic hazard prediction training” in order to implement a sweeping shift from inattentive driving to traffic hazard-prediction driving. We also participated in the No Accident/No Moving Violation Contest sponsored by the traffic safety associations of each prefecture to strengthen awareness of safe driving.

“Safety Check Day”

Beginning in fiscal 2018, the DAIHEN Group designated December 15 as Safety Check Day, which offers an annual opportunity for all employees to reconfirm their safety awareness and monitor their own behavior. As for the matters to be addressed, the chairperson of the Group Health and Safety Committee sends out a safety message, and all workplaces are offered “safety focus time” in which to ponder safety and conduct safety inspections. Managers and supervisors conduct safety patrols to identify hidden dangers in their own workplaces and nip them in the bud.

Safety Check Day poster

Measures against COVID-19

We enforced the basic measures recommended for preventing the spread of COVID-19, including the wearing of masks, washing and disinfecting hands when entering the workplace, and social distancing. We continue to implement measures to reduce the risk of viral infection. These include stringent fever screening and health maintenance, practicing infection control measures during commuting, installation of acrylic panels in common spaces, and disinfection of equipment.
In addition, to support the safety and security of employees and their families, we offered COVID-19 vaccinations for employees working at the following locations in the region.

Workplace vaccination initiative

[Type of vaccine]

Takeda/Moderna vaccine

[Vaccination venue]

Hall on Second Floor of the Head Office, Juso Business Office

[Implementation period]

1st and 2nd rounds: July and August 2021
3rd round: March 2022

[Eligibility]

- Full-time permanent employees, temporary employees, contract employees, and family members in the immediate household
- Local suppliers
- Local residents
  (In collaboration with the Osaka City Yodogawa Council of Social Welfare)

[Number of vaccinated individuals] As of March 31, 2022

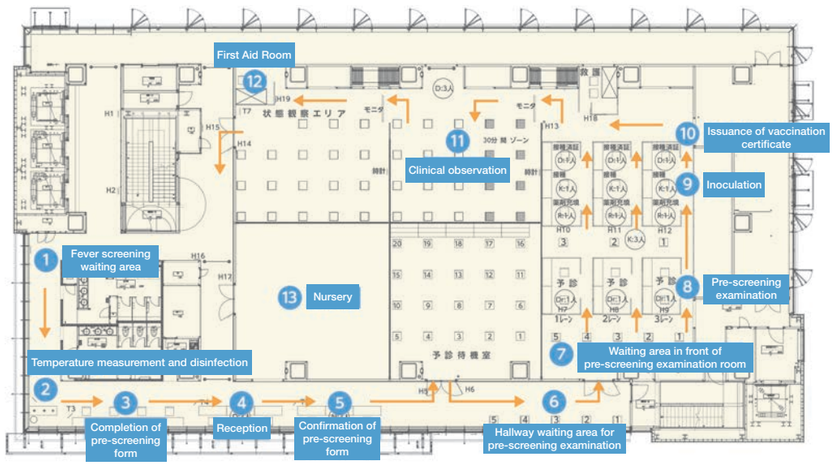
Breakdown of vaccinated individuals	Vaccinated individuals
Employees (including temporary and contract employees)	1,903
Employees' families	746
Suppliers	269
Local residents	39
Total	2,957

Reception

Clinical observation room

Nursery

Flow of workplace vaccination



Seeking symbiosis with the local community and cooperation with society

As a member of the local community, each business office or plant is deepening its interchange and establishing a positive relationship with community residents while fulfilling its corporate social responsibility through various support initiatives.

Communication with the local community

Keeping the community in focus

In August, we open up a part of the Juso Business Office site in Osaka and DAIHEN Industrial Machinery site in Tottori City to the general public for classic summertime festivals. Our employees man booths and run raffles and other events that give us a fun and entertaining platform for deepening interaction with the residents of the surrounding community and amongst group employees and their families.

On a slightly different note, group company Daihoku Industry joins the local community in Eniwa City, Hokkaido in bringing a little warmth amidst the snow and cold of February via the city's "Candle Night".

Summertime festival at the Juso Business Office site

Neighborhood schools participate in plant tours

At the Juso Business Office, Rokko Business Office in Kobe and DAIHEN Industrial Machinery, we give tours of our offices and plants to elementary schools, daycare centers and technical colleges from the nearby area, and, as a more in-depth look into what we do, offer internships and shadowing opportunities to junior high school students. Through these activities, we try to convey what it means to work in manufacturing and why we think the DAIHEN Group is so interesting.

Elementary school students touring the showroom at the Juso Business Office

Tour at DAIHEN Industrial Machinery

Special STEAM program seminar for Hyogo Prefectural Hyogo High School

As part of the STEAM program at Hyogo Prefectural Hyogo High School (Kobe), we welcomed students for a special seminar and tour of our plant and research facilities at the Rokko Business Office, and taught them a thing or two about robots.

In fiscal 2021, we accepted 11 participants who were quite pleased at this valuable opportunity to consider future career opportunities. The students commented that hearing the explanation of "robots making robots" and observing the actual manufacturing process was impressive and highlighted this was not a process undertaken solely for demonstration purposes. They also commented that what they learned at school could be applied to robot development.

Special STEAM seminar at our Rokko Plant

Note:
STEAM is a cross-curricular educational program geared for teaching students how to apply what they know about Science, Technology, Engineering, Art and Mathematics to discovering and solving problems in the real world. The objective is to develop "topic setting, design and communication" skills and underlying skills in "language and mathematics" required by Society 5.0. Hyogo High School was selected by the Hyogo Prefectural Board of Education as a model school for the STEAM program in 2020, which will continue for three years.

Note: Due to COVID-19, all events, tours and internships were canceled in 2020 and 2021.

Our Commitment to Society and Local Communities

Supporting social welfare, education, and cultural initiatives

Support for social welfare

The Hakuaisha, a social welfare service corporation that carries out social welfare activities in Yodogawa-ku, Osaka, holds a regular event known as the Hakuaisha Carnival. Employees wishing to make donations provide numerous items for the fundraising bazaar.

Support for scientific education

DAIHEN sponsored an exhibit about "Future Society Portrayed by Wireless Charging" at the OSTEC Exhibition Hall. The exhibit is educating people of all ages from elementary school up about the advantages of wireless charging and our products. DAIHEN is happy to play a role in educating the next generation.

DAIHEN exhibit at the OSTEC Exhibition Hall

Support for art and culture

We participated in initiatives in support of the Osaka Symphony Orchestra, the Osaka Philharmonic Orchestra, the Kansai Philharmonic Orchestra, and Nagashibina Maranic (marathon and picnic) event in Mochigase (Tottori City).

Donations to local communities

DAIHEN donates 1% of its operating income to social welfare, feed-the-children and other organizations in local communities* that host important business sites of the DAIHEN Group, for the purpose of supporting and protecting underprivileged children (protection against abuse, tutoring, financial support, etc.). Last year, the money was used to help buy meals served at children's cafeteria and supplies like uniforms, and to renovate aging facilities in the communities.

* Osaka City, Kobe City, Taki Town (Mie Prefecture), Chitose City and Eniwa City (Hokkaido), Tottori City, Tadotsu Town (Kagawa Prefecture), Kitsuki City (Oita Prefecture)

Cleanup activities surrounding our business offices and plants

Each location of the DAIHEN Group is proactively engaged in cleanup campaigns and is contributing to regional beautification initiatives. Going forward, we intend to participate in future regional beautification and vitalization efforts such as these.

Juso Business Office (Osaka City)

Rokko Business Office (Kobe City, Hyogo)

Mie Business Office (Taki Town, Mie)

Chitose Plant (Chitose City, Hokkaido)

Kanehira Plant (Osaka City)

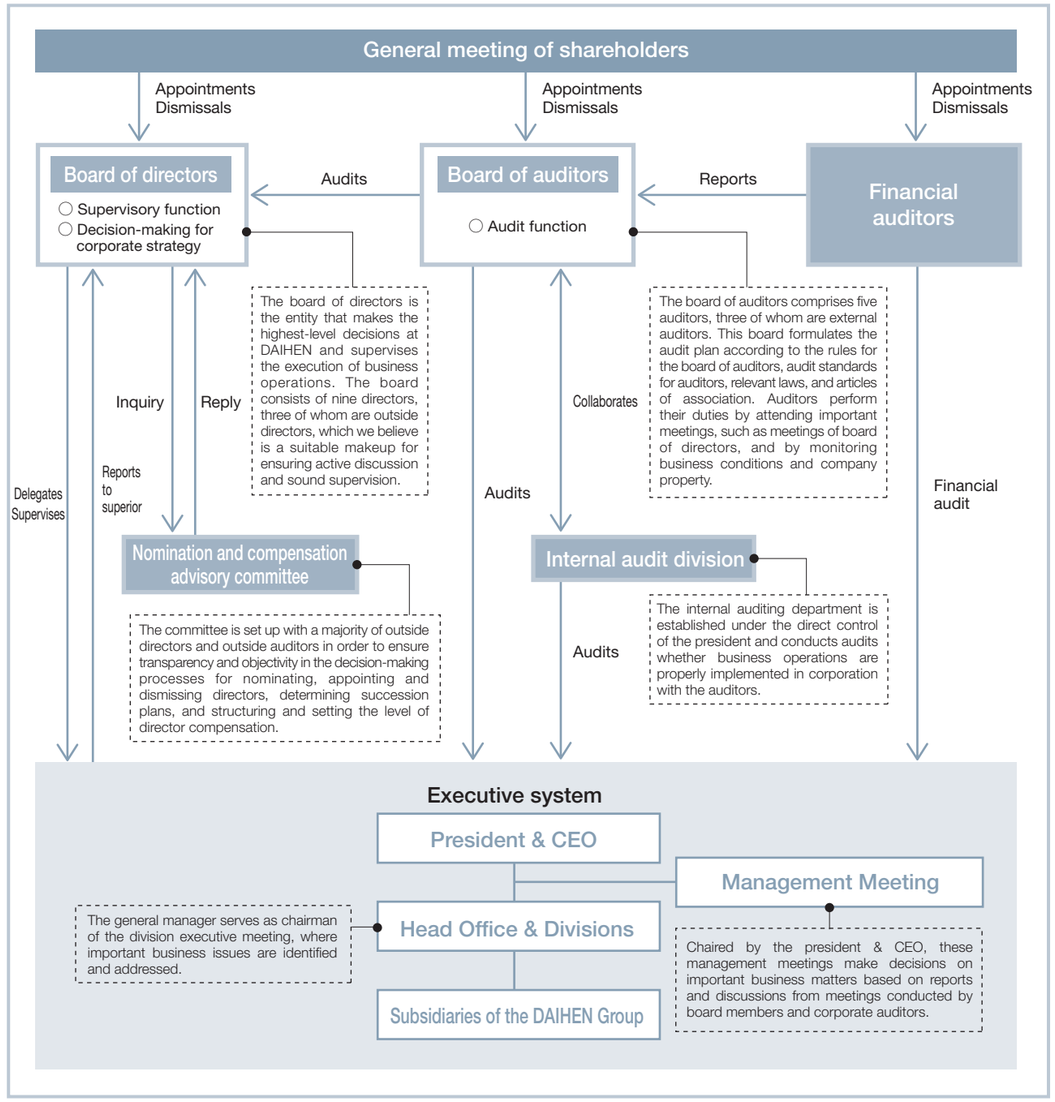
Ensuring management transparency and thorough compliance

An underlying principle of all our operations is to win the trust of our customers and all elements of society. The DAIHEN Group is striving to enrich its corporate governance in order to improve the transparency of management and ensure full compliance.

Efforts in corporate governance

The DAIHEN Group maintains a board of auditors that monitors the business undertaken by the board of directors. In June 2001, we adopted an executive officer system and enhanced the decision-making and supervisory functions of the board of directors to ensure the efficient operation of our business.

Corporate governance system



Corporate officers

As per the Articles of Association, DAIHEN's board of directors is composed of no more than twelve persons of any age, gender and nationality, as this number and makeup are believed to bring the most balance of knowledge, experience and skill, and diversity to the board as a whole.

Director appointments are based on an overall evaluation of the experience, insight, expertise and character deemed necessary to execute and realize business strategies with a deep understanding of DAIHEN's corporate philosophy. Auditors must have broad experience and insight because their duty is to audit business execution on behalf of the shareholders. Outside directors are selected in consideration of their overall independence, business experience and expertise from the perspective of enhancing the board's role of overseeing and supervising business operations, and are reported to the Tokyo Stock Exchange as independent directors.

In June 2021, DAIHEN increased the number of independent outside directors so that they account for one-third of the board of directors.

Officer/Responsibilities		Name	Management / Business strategies	Compliance / Risk management	Finance / Accounting	Human resource management	Technology / R&D	Sales / Marketing	International experience / Diversity
Chairman		Tetsuya Tajiri	●	●	●	●		●	
President and Chief Executive Officer		Shoichiro Minomo	●				●	●	●
Executive Vice President and Member of the Board	Sales (Power Equipment), General Manager of Power Products Sales Division	Kazuo Kamo	●			●		●	
Executive Vice President and Member of the Board	Sales (Welding & Joining Equipment, FA Robots), President of DAIHEN Techno Support Corporation	Keiki Morimoto	●				●	●	●
Senior Vice President and Member of the Board	Sales (Industrial Power Equipment), Decarbonization-related Equipment Business; Deputy General Manager of Power Products Sales Division	Haruhisa Kimura	●			●		●	
Senior Vice President and Member of the Board	Risk management, compliance, and safety; Personnel, General & Judicial Affairs Departments, Environmental Management System Department	Shingo Wada	●	●			●		●
Member of the Board Independent		Keiichi Ando	●	●	●	●			●
Member of the Board Independent		Emiko Magoshi	●			●			●
Member of the Board Independent		Yasufumi Fujiwara					●		●

Standing Auditor	Tatsuya Iba	●				●		●
Standing Auditor	Keitaro Takahashi	●				●	●	●
Auditor Independent	Haruo Urata	●	●	●	●			
Auditor Independent	Masashi Yoshida			●				
Auditor Independent	Hiroyuki Shime	●	●		●		●	●

Compliance and risk management initiatives

In addition to fulfilling our corporate social responsibility, we continue to seek ways to improve compliance awareness among all our employees. We are addressing this issue by implementing various initiatives intended to ensure that we do not betray the trust of the public.

In the area of risk management, we streamlined our manuals and regulations and instituted training in preparation for natural disasters and accidents; moreover, we have developed a system to serve as a framework for ensuring compliance in relation to risks associated with misconduct and legal violations.

As for risks related to rapidly developing information systems and the intellectual property field, we are addressing risk management through workshops, enacting various rules and regulations, and keeping employees informed throughout the company.

Establishment of a Compliance Committee and Risk Management Committee

We created a Compliance Committee in order to build, put into action and maintain a compliance management system. It is chaired by the officer in charge of compliance and composed of planning department managers from the respective divisions, department heads from the head office, etc. As a committee, they plan and promote compliance activities of the DAIHEN Group, and report and discuss issues that occur.

In addition, we established a Risk Management Committee to undertake Group-wide risk management and implement suitable countermeasures. Chaired by the officer in charge of risk management and composed of general managers from the respective divisions, department heads from the head office, and others, the Risk Management Committee examines material risks in a cross-sectional manner and promotes risk management initiatives across the DAIHEN Group.

The DAIHEN Code of Ethics

The DAIHEN Code of Ethics spells out exactly how we are to conduct ourselves in business and stay true to the key concepts of our corporate philosophy, “Reliability & Creativity”, by laying down the basis of laws and regulations, internal regulations and manuals, and other rules with which we must comply as a corporation.

A pocket-size version of this publication has been distributed to all Group employees so that their actions and decision-making will always be to the highest ethical standards.

DAIHEN Code of Ethics

Guide to Compliance with Laws and Regulations

As a means of preventing legal violations resulting from a lack of recognition or ignorance of the law, we have developed a compliance guide that summarizes the laws and regulations that all employees must follow. It also presents specific incidents involving violations of the law. This guide can be viewed or printed from any computer on the corporate network.

Establishment of a counselor’s office for the compliance, “Helpline”

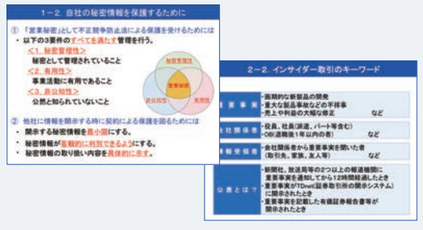
We established a “Helpline” to prevent, detect and correct potentially illegal acts before they go too far. It gives employees a channel for reporting compliance concerns internally to a designated department or, if need be, to a law firm outside the company.

Our Whistleblower Protection Rules state expressly that any persons who report an incident will receive full protection and guarantee them that the matter will be kept strictly confidential and that they will not be treated adversely because they consulted the Helpline.

Column

Compliance training

Compliance training is imparted to ensure the DAIHEN workforce is fully aware of and acts in line with corporate ethics, laws and regulations. The importance of upholding these social and legal obligations is repeatedly driven home by putting into perspective the serious consequences that compliance violations by the company can have for customers, shareholders, suppliers, local communities that host our business sites and the company itself. Moreover, we are making our workforce aware that they are always representing the company and helping them to better understand the laws, regulations and rules that govern our business through internal workshops and e-learning that focus on contracts and specific laws and regulations, and periodically explain the DAIHEN Code of Ethics and Guide to Compliance with Laws and Regulations. Through these programs, we are trying to establish a proper understanding of compliance and diffuse that amongst the entire workforce so that everyone “acts in line with corporate ethics”.



E-learning modules used in compliance training

Strengthening information security

In light of the growing importance of information security, the entire DAIHEN Group has adopted a variety of initiatives to enhance our information security system.

[Past activities]

Creation of an Information Security Committee

Our Information Security Committee (ISC) improves the information security policy for maintaining and managing information security from a single unified perspective. The ISC also promotes awareness activities such as required security training and education, in order to make the DAIHEN workforce conscious of the importance of information security, and introduces tools for preventing leaks and illegal access to confidential information, etc.

Compliance with our information security policies

The Group has established information security policies, such as the “Basic Policy for Information Security”, “Rules on Information Security Measures” and “Rules on the Protection of Personal Information”, and organized them to facilitate compliance. In order to verify that the information security measures are working properly, we conduct internal audits every year and, if inadequacies are detected, improvement plans are crafted and implemented.

Promotion of information security awareness activities

In order to raise employee awareness of information security issues, we use e-learning to provide training that is continually updated as we monitor the latest trends. We alert our employees to targeted attack e-mails directed at specific companies and organizations and provide training in the proper protocols to follow when such an email is received. Moreover, we provide ongoing educational activities.

For our business locations as well as our suppliers outside Japan, we hold local briefings in compliance with our information security policies to protect our information assets. We also provide guidance on the use of various information security tools.

Strengthening our information security infrastructure

To safeguard against information leaks caused by personal computers or external recording media being stolen, lost or hacked, devices at DAIHEN are protected with passwords, operating logs are kept and external recording media are carefully managed. Information security has also been bolstered through the introduction of systems and software such as a thin client system that does not save files to computer disks and antiviral software that detects malicious behavior suspect to malware.

[Important actions planned in fiscal 2022]

We will strengthen information security across the entire Group by improving awareness and establishing measures.

- Management and administration of user authorities over information assets
- Training via e-learning at all business sites including those overseas
- Providing support to suppliers to fortify the supply chain
- Stronger network security measures

Initiatives to protect our intellectual property

In the area of intellectual property, we are implementing a variety of initiatives to support risk management and legal compliance. For example, we comply with applicable laws and regulations relating to intellectual property rights before we undertake to develop, manufacture, or sell a product; in addition, we always confirm that we are not infringing the intellectual property of another company (to prevent the risk of infringement). This approach ensures that our customers can use our products in full confidence.

Proper stewardship of intellectual property rights

In order not to infringe upon the intellectual property rights of other companies, we regularly read through public gazettes that report on new patents and the like. We also conduct design reviews and patent clearances when developing new products or modifying designs to make sure we steer clear of rights that belong to others.

On the reverse side of that topic, we build patent networks around our best technologies to clearly differentiate our products from competitor products, and use these legal protections to gain a competitive edge and stabilize business.

For all of that to happen requires us to be at the best of our abilities, therefore we provide and regularly upgrade education on intellectual property rights, management and protection via a combination of level/purpose-based internal training that is structured by the number years of experience an employee has, and outside learning opportunities organized by the Japan Intellectual Property Association.

Training in contracting

The open innovation that is defining these times is steering businesses such as DAIHEN to cooperate more and more with other businesses, universities and institutes both at home and abroad. This is making how confidentiality, joint research and development, and results are contracted that much more important. Therefore, as a part of our employee training program, we hold seminars on contracting every year and, in more recent years, have targeted sales departments for those seminars because our sales forces are often the first point of contact in business processes that require contracting. Those seminars are structured as presentations with practical exercises using actual contracts, so that participants get a better grasp of the material. These programs are intended to continuously elevate knowledge of contracting processes amongst our workforce.

Seminar on contracting

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