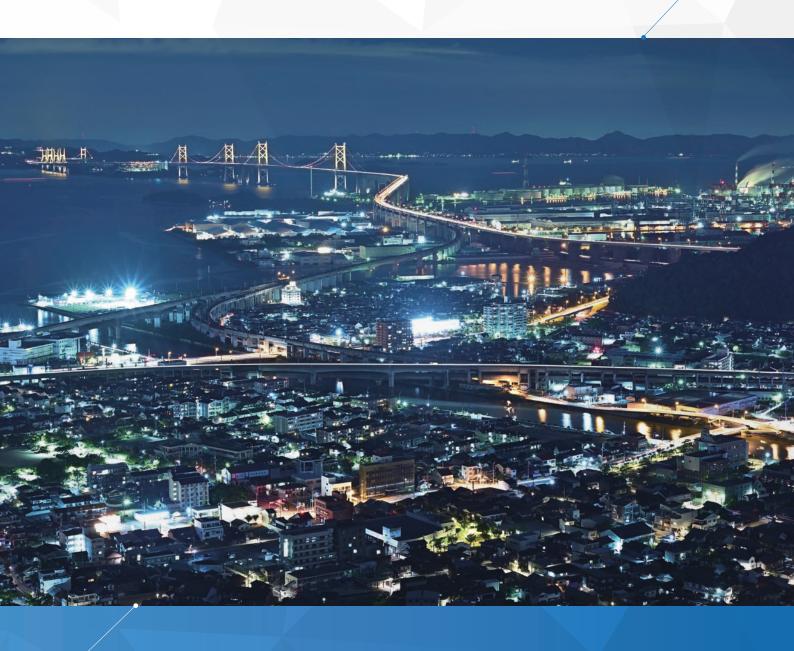
Contribute to society through creation



# Corporate Guide



## Message from the president



Shihen Technical Corporation President

松本浩昌

Hiromasa Matsumoto

Established in 1946 through a joint venture between Daihen Corporation and Shikoku Electric Power Co., Inc., our company became the sole transformer manufacturer in the Shikoku region. We began by repairing pole-mounted transformers and thereafter built an almost eighty-year legacy of contributions to society through the supply of electric power equipment.

We strive to further improve our technology and contribute to society by supplying products in accordance with a corporate creed that calls on us to serve through creative action. Our company philosophy centers on building strong, lasting relationships of trust with stakeholders, which is rooted in the spirit of cooperation and harmony as embodied in our credo of respect, affection, and reliance, and is alive and well as evidenced by our long-standing history and rich traditions.

By consistently meeting the evolving needs of our customers with our comprehensive portfolio of wide-ranging technologies, we have today earned the trust and high acclaim of those customers. Our solutions include electric power equipment that helps to ensure a stable supply of electric energy, power supply equipment that is essential for semiconductor-manufacturing and office equipment, precision molds that make sophisticated press working tasks feasible, and electric water heaters that make comfortable living possible.

There is a strong need for companies like ours to implement comprehensive ESG management practices and pursue carbon neutrality as we seek to realize a sustainable society in response to global concerns about climate change and the need to protect the environment and otherwise address a host of societal issues.

Beyond continuously enhancing the energy efficiency of conventional electric power equipment, we are striving to create new value through our specialized technologies. Our portfolio includes electric power equipment for system storage facilities and wind farms that promote the adoption of renewable energy, transformers that use soil-safe vegetable oil as insulating oil, and environmentally friendly switchboards free of paint and welded parts.

We appreciate your continued support and advice.

## Corporate philosophy



Serving through creation

Shihen Technical Corporation serves society with creativity and ventures into the path of true prosperity and endless happiness through this service.

Company motto



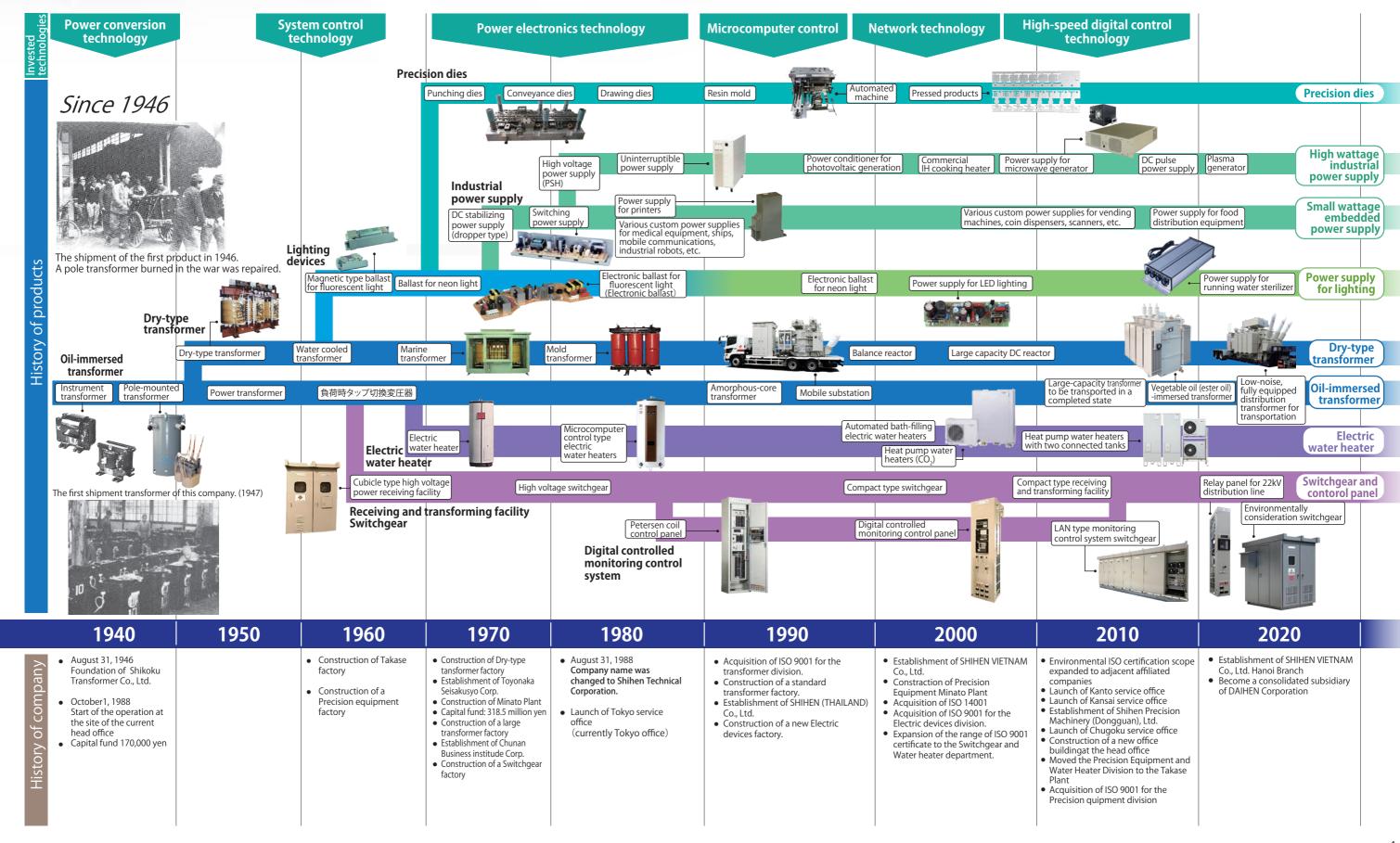
Respect, Affection and Reliance

The company cultivates relationships connected by respect, affection, and reliance to work together with society and grow and develop with local communities.



## History of products

Since we started repair business for Pole-mounted transformer in 1946, we have combined new technologies with the technology we have cultivated in transformers to create new business areas such as switchgear, electronic



 $\mathbf{a}$ 

## Range of business

Shihen Technical Corporation is working on five business domains based on technologies to ensure stable power supply that the company has accumulated throughout its history.

Used for converting and controlling electricity at substations, utility poles, and factories



Large transformer



High efficiency-type (Top Runner) oil-immersed transformer



Dry-type transformer



Pole-mounted transformer



Current-limiting reactor

Transformer Reactor

> Switchgear Control panel

Distributes, controls, and protects electricity at substations, factories, and offices



Digital controlled monitoring control panel



Extra-high voltage switchgear



High voltage switchgear



LAN systems for substation monitoring

We produce new Shihen Value while effectively using technologies that the company now possesses.

Switching power supply

Built-in power supply units support the stable operation of office appliances, LED lights, and industrial machinery



Power supply for commercial label printers



Power supply for printers



Power supply for LED downlights



Power supply for LED ceiling lights (for home use)



Power supply for vending machines



Power supply for AC adapters

Precision dies
Automated machine
Press processing

Heat pump water heaters

**Electric** water heaters

Manufactures dies that are an essential tool in manufacturing and processes metals using these dies



High-speed terminal dies



Conveyance dies



Automated machine and hydraulic press



Pressed products

Delivers hot water anywhere, including the home, stores, and offices



Electric water heater [Square type]



Electric water heater [Cylindrical type]



Electric water heater [Small kitchen type]



Heat pump water heaters (CO<sub>2</sub>)



# Customized design and technology based on high efficiency type as its standard

- Large-capacity oil-immersed transformers, mold transformers, and type-H dry transformers have the same level of efficiency as high efficiency-type (Top Runner) transformers.
- We can design transformers that achieve the highest levels of efficiency for the expected equivalent load factor of the transformers that our clients use.



66 kV class oil-immersed transformer



Forced-oil water-cooled transformer for a thyristor unit

# Technologies for designing transformers for thyristors and inverters

- We design and produce thyristor transformers for such circuits as bridge connections and double star connections as the power supply for rectifiers.
- We also have technologies to design and manufacture output transformers for multiplex inverters to reduce high-frequency wave interference and transformers for IGBT converters of large variable-speed systems.

## **Support system**

## **Support system for transformers and switchgears**

We quickly respond to problems to ensure a stable supply of electricity.



Installing a transformer



Repairing a switchgear

## 33 kV insulation technology

We can design and produce substation equipment used for 33 kV extra-high-voltage circuits.

## Developing environmentally friendly products

In answering the clarion call expressed in the Declaration of Carbon Neutrality, we developed environmentally consideration switchgears using paint-free and weld-free structures and eco-friendly electrical wires in response to the demand for environmentally friendly products in the category of power-distribution equipment.



Environmentally consideration switchgear

## Accommodating reductions in the size of distribution substations

By using compact transformers, switchgears, and aluminum-packaged control panels, we have been installing (single-line) distribution substations within tower sites (approximately 260 square meters each) used with 66 kV transmission lines.







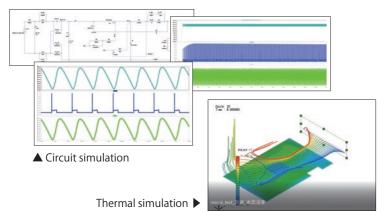
A substation on the site of a transmission tower

# Switching power supply technologies

Supporting power supply with optimal designs to meet the low-capacity to high-capacity needs of customers by harnessing our extensive knowledge and experience

# Electronic circuit design and verification technologies

We can shorten development cycles and achieve optimal designs by using circuit simulation software, thermal simulation software, shielded rooms, and more.





#### Measurable test items

- Noise terminal voltage
- · Radiated noise electromagnetic field strength
- Noise power



## DC stabilizing power supply

- We can design and produce power supply for various purposes. We engage in optimal design work for not just electric circuits but also switching transformers.
- We provide products that satisfy the standards of an energy-saving program thanks to designs that minimize power consumption during standby.
- By ensuring compliance with safety standards applicable in countries around the world, we achieve global compatibility.



DC stabilizing power supply

## **Power supply for LED lighting**

- We harness DC stabilized power supply technologies cultivated over many years to reduce costs and realize compact designs.
- Our proprietary microcontroller software design allows us to offer various lighting fixture functions, including dimmer control and wireless connectivity.
- We provide products for outdoor lighting with waterproof and dustproof features.



Power supply for LED lighting

## Power supply for semiconductor manufacturing

- Know-how pertaining to inverter and control technology cultivated over many years makes it possible for us to design high-voltage power supply.
- By applying advanced system design technologies, we optimize circuit and software design.



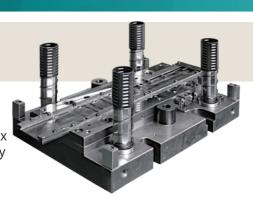
# Precision dies, Automated machine, **Press processing**

Realizing high-precision, complex precision press dies with proven technological capabilities and craftsmanship

# Precision press dies technologies

In 1970, we began producing precision press dies.

We now provide high-precision, complex dies reflecting the accumulation of many years of technology.





400 ton press machines

### **Progressive press dies**

Progressive press dies are high-value-added dies that can be used to achieve higher working speeds, labor savings in downstream processes, and improved yield rates.

Dies up to and including the 400-ton class of dies (die sizes of 2,400 mm) can be manufactured. We also propose solutions to help improve our customers' productivity with our suite of outstanding technological capabilities, including in-mold bonding for which multiple coil materials are harnessed.



Precision dies for automotive connector cases



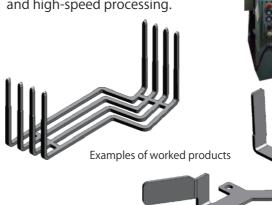
Precision dies for power equipment

**Press machine and** 

automated machine

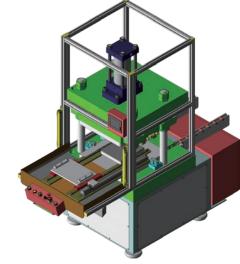
## **Press processing**

We possess around 40 press machines that weigh between 3 and 400 tons and that meet all your needs, including progressive processing, single-hit processing, deep drawing, and high-speed processing.









# Providing heat pump water heater and electric water heater

Safe, clean, and economical Helping people lead comfortable lives with electrically heated hot water







## A clean and efficient integrated production line

We engage in highly efficient production operations using know-how based on many years of experience and reliably produce affordable, high-quality products that satisfy the needs of our customers.







# Designing and producing customized products

## Lower-floor hot water supply system

This system provides hot water to a lower floor by improving the strength of the tanks rather than implementing measures for air valves that are at risk of damage when a water heater supplies hot water to a lower floor.

## **Commercial parallel hot water supply system**

Multiple electric water heaters are connected in series to enable the supply of hot water for extended periods of time at hospitals and other large facilities. Water heaters connected in parallel enable large amounts of hot water to be secured at public baths and other such facilities where large volumes of hot water are needed at once.

## **Pursuing high quality**

We are developing highly efficient, long-lasting products by using our know-how and conducting tests over and over again with the latest equipment to ensure high levels of efficiency and durability under various environmental conditions, such as those that are defined in terms of ambient temperature and water quality.



Commercial parallel hot water supply system



Environmental durability testing using a thermostatic chamber

# Products and services that are helping to solve social issues

We are meeting the needs of society through the provision of products and services that can help deal with global warming and other environmental issues.

## High efficiency-type (Top Runner) transformer

When transforming electricity into a usable voltage, a conversion loss—albeit a very small amount—occurs. A portion of the power ends up being converted into heat that is released into the atmosphere.

This conversion loss causes the following adverse effects.

- Wastefully causes CO<sub>2</sub> to be generated during power generation
- Power that is lost through conversion loss is included in the electricity bill

High efficiency-type (Top Runner) transformers are transformers for which conversion losses fall below values set forth by the Act on the Rational Use of Energy. We are continuing to develop such transformers with a view to complying with the Third Judgment Standard, which is to be revised in 2026.



High efficiency-type (Top Runner) oil-immersed transformers



Molded high efficiency-type (Top Runner) transformers

## Vegetable oil-immersed transformers

Whereas conventional transformers use a mineral-based insulating oil, these are transformers that use an insulating oil primarily derived from rapeseed oil. They offer the following benefits:

- Since carbon dioxide in the atmosphere is absorbed through photosynthesis as rape blossoms grow, the amount of carbon dioxide that is emitted is one-sixth that of mineral-based oil over the life cycle of the rapeseed plants.
- Since rapeseed oil is broken down by microorganisms in the soil, the environmental impact is minimized even if the oil were to leak from the damage caused by a disaster.
- High flash point lowers the risk of ignition
- Long service life as an insulating oil

# **Environmentally consideration switchgear**

 Using highly corrosion-resistant plated steel sheets to achieve a paint-free finish that inhibits volatile organic compound (VOC) emissions

- Using a fully weld-free structure to significantly reduce emissions during the manufacturing process
- Using polyethylene resin-coated wires rather than conventional vinyl-coated wires to facilitate recycling





Transformer equipped with a 66 kV on-load tap changing

# Electric power equipment for renewable energy



We provide transformers and switchgears tailored to the specific characteristics of such renewable energy-generating facilities as solar power plants and wind farms as well as grid-linked storage facilities.

## **ESG** management initiatives

## Promoting ESG management in order to continue to serve society

We promote **ESG** management (**Environmental**, **Social**, and **Governance**) in order to protect the global environment and fulfill our social responsibilities to stakeholders. We will continue to engage in activities in this area with the aim of realizing a sustainable society.



#### **Environment** Environmental conservation initiatives

Since acquiring environmental ISO14001 certification in 2005, we have been evaluating and working to reduce the impact of manufacturing on the environment.

In order to address the constantly growing scope of environmental issues, we will continue to gather information and look into effective initiatives.

#### Acquired ISO14001 certification

Our entire factory complex, which includes not just our company but also affiliated companies involved in our manufacturing process (Shikoku Kosho Co., Ltd., and YOSHINO DENKI KOGYO Co., Ltd.), are working to mitigate our environmental impact.



### Initiatives for achieving carbon neutrality

Having ratified the United Nations Framework Convention on Climate Change, Japan has set targets for reducing greenhouse gas emissions (whereby the country should achieve a 46% reduction in emissions by 2030 compared to 2013 levels and carbon neutrality [net-zero emissions] by 2050). To this end, we began by operating factory equipment according to energy-saving principles and have otherwise been working on a number of initiatives, including by making capital investments in a variety of energy-saving equipment, reducing fuel oil consumption through electrification, and utilizing renewable energy.

We harnessed factory rooftop space to install 3,216 250 W solar panels. These panels provide renewable energy with an aggregate maximum generation capacity of 666 kW.



Solar panels (shown in blue)







#### Working to reduce waste

Our ongoing waste-separation efforts to date have reduced the amount of waste generated by approximately 30% compared to a decade ago. While we promote daily separation activities, improvements in recycling rates have more or less plateaued because of the increase in the volume of waste that is

considered difficult to separate. We will continue to undertake new initiatives, such as those that concern plastic separation, and will promote activities to reduce amounts of incinerated waste and waste that is sent to landfills.



#### For the protection of the local environment

We engage in various activities in order to protect the local environment and build positive relationships with the community.





Volunteering to plant trees



Volunteering to clean up beaches



Cleaning up local rivers

## through creative actions

## **Social** Supporting the growth of a sustainable society

In 1971, the year we commemorated the 25th anniversary of our founding, we changed our corporate motto from "Serve through quality" to "Serve through creative action." Since then, we have been taking on the challenge of serving society through creative action and have continued working to this end.







In response to the increasing sophistication of SDGs and other international initiatives, we are proactively working to reduce our carbon footprint and address human rights.

#### Establishing a temporary disaster evacuation site

We have concluded an agreement concerning the use of our head office as a temporary evacuation site in the event of a disaster (designated emergency evacuation site) with Tadotsu Town, which is where our head

We have prepared our three-story main building for use as a temporary evacuation site by local residents in the event of a tsunami or other disaster. The introduction of Daihen Corporation's V2X system (\*) has allowed us to supply electricity to the temporary evacuation site from electric vehicles and large-scale storage batteries if a power outage were to occur.

(\*) V2X: Vehicle to Everything

System supplying electricity to facilities from electric vehicles



: Temporary evacuation site

#### Supporting activities by organizations making social contributions

Matsumoto Mitsuharu Shoten Co., Ltd., has developed the Ecowa Project, a service for harnessing proceeds from the sale of valuable items to support the activities of organizations making social contributions, including the operators of cafeterias for children.

We also support this initiative and have been participating in it as an Ecowa Corporate Partner in order to contribute to the local community through recycling.







#### Participating in local events

We regularly participate in the Shikoku Omotenashi Henromichi Walk, an event hosted by the NPO Network for Shikoku Henro Pilgrimage and Hospitality. We walk the approximately 1,200-kilometer-long Shikoku 88 Temple Pilgrimage in sections and conduct inspections of the path for safety, signage, rest areas, and restrooms.



## **Governance** Aiming to engage in sound corporate management

- Aware of the importance of earning the trust of society, we are committed to reinforcing corporate governance in accordance with the Companies Act (and its enforcement regulations) in order to carry out business activities that are lawful, proper, and efficient. We ensure sound management in connection with the execution of duties by everyone—from the president on down—by ensuring the effectiveness of governance by way of oversight by the Board of Directors and audits by the auditors and by having established an internal audit department.
- We are promoting compliance in management by having enacted the Shihen Technical Code of Conduct and Compliance Guidelines and established the Compliance Promotion Committee and a consultation service desk.
- We engage in initiatives based on the CSR activity policies of Shikoku Electric Power Co., Inc., and Daihen Corporation as a member of the DAIHEN Group and the Yonden Group.

## **Domestic locations**

We render service promptly with an efficient system of production with factories set up near our head office.









#### **Domestic service offices and plants**



#### Head office / Tadotsu plant

Transformer, switchgear, and switching power supply

1-97 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-8507 TEL: +81-877-33-1212 (main line)

#### Transformer, switchgear

Electric power equipment business unit sales dept. enterprise sales section #1 TEL: +81-877-33-2525 FAX:+81-877-56-6067

#### Switching power supply

Electronics products business unit sales dept. sales section

TEL: +81-877-33-2323 FAX:+81-877-33-0775

To Okayama 🛮





#### **Takase Plant**

Precision dies, Electric water heater

200-1 Hiji, Takase-cho, Mitoyo-shi, Kagawa 767-0004 TEL: +81-875-72-4111 (main line)

#### **Precision dies**

Precision equipment division and sales division TEL: +81-875-72-4111 FAX:+81-875-72-4110

#### Electric water heater

Water heater department, sales department TEL: +81-875-72-4300 FAX:+81-875-72-4302



#### Transformer Minato Plant

30 Nishiminatomachi, Tadotsu-cho, Nakatado-gun, Kagawa 764-0017

TEL: +81-877-33-1212 (Head office)

Repairing a pole-mounted transformers

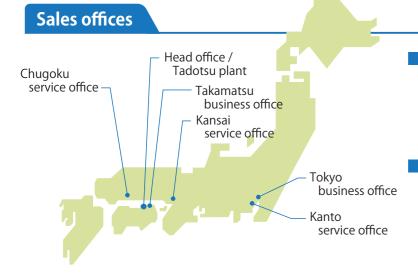


#### Precision Equipment Minato Plant

16-13 Nishiminatomachi, Tadotsu-cho, Nakatado-gun, Kagawa, 764-0017

TEL: +81-875-72-4111 (Takase Plant)

Contents of Pressing and assembly of parts



### ■ Tokyo business office



Transformer, Switchgear



7F, Eagle Hamamatsu-cho Building, 2-7-17 Hamamatsucho, Minato-ku, Tokyo 105-0013 TEL: +81-3-3578-1641 FAX: +81-3-3578-1645

#### ■ Takamatsu business office



Transformer, Switchgear

3F, Yonden Building Main Wing, 2-5 Marunouchi, Takamatsu-shi, Kagawa 760-0033 TEL: +81-87-851-1691 FAX: +81-87-823-2493

#### Kanto service office

4129-2 Tana, Chuo-ku, Sagamihara-shi, Kanagawa

#### Kansai service office

25-11 Sangamaki 1-chome, Takatsuki-shi, Osaka

## Chugoku service office

2-22 Hikino-cho 2-chome, Fukuyama-shi, Hiroshima

## **Shihen Tech Group**

Promptly supplying low-cost, high-quality parts and services with our proprietary technologies.

#### **Subsidiaries**



#### Shikoku Kosho Co., Ltd.

https://shikokuk-k.com/



1-82 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-0012 TEL: +81-877-32-2653 FAX: +81-877-32-2681



Manufacturing small oil-immersed transformers; fabricating transformer cores; designing, manufacturing, and fabricating sheet metal for power receiving and distribution equipment; and fabricating conductor, metal, and resin products



#### **TADOTSU UNSO Corporation**

http://www.tadotsu-unso.co.jp/



1-94 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-0012 TEL: +81-877-33-4001 FAX:+81-877-33-3629

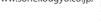


Transporting vehicles in general cargo; collecting and transporting industrial waste; and delivering, installing, and dissembling transformers and switchgears



#### **Sone Kougyo Corporation**

http://www.sonekougyo.co.jp/



769 Hijidai, Toyonaka-cho, Mitoyo-shi, Kagawa 769-1501 TEL: +81-875-62-2327 FAX:+81-875-62-2214



Manufacturing electrical machinery and equipment parts, manufacturing transformer parts, and otherwise press working metal products

#### Affiliated companies



#### YOSHINO DENKI KOGYO CO., LTD.

https://yoshino-dk.com/



1-74 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-0012 TEL: +81-877-32-3049 FAX: +81-877-32-3040

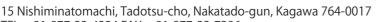


Manufacturing small and medium-sized transformer windings and assemblies and various types of electrical equipment and installing, adjusting, and otherwise maintaining electrical equipment



#### Minami Electric Co., Ltd.

http://www.minamidenki.co.jp/





TEL: +81-877-33-4224 FAX: +81-877-32-7286



Producing transformer cases, fabricating sheet metal, and applying various types of coating



#### **Shikoku Tosou Corporation**

1-40 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-0012 TEL: /FAX: +81-877-32-3746



Painting transformers and switchgears



#### Tadotsu Chuzo tekkosho Corporation

http://tadotutyuuzou.web.fc2.com/

5-79 Kitagamo 3-chome, Tadotsu-cho, Nakatado-gun, Kagawa 764-0022 TEL: +81-877-33-2244 FAX: +81-877-33-4282



Fabricating and assembling sheet metal and fabricating and assembling presses



## **Overseas locations**

Our overseas factories achieving superior levels of both quality and cost and making our foray into the giant Asian market



#### SHIHEN (THAILAND) CO., LTD.

Since this company opened in 1996 as the site of our first overseas plant, it has accumulated production technologies over many years and supplies high-quality products

527 Moo2, Klongjig, Bang Pa-in, Ayutthaya, 13160, Thailand TEL +66-35-352591 FAX +66-35-352594





### SHIHEN VIETNAM CO., LTD

Since it was established in 2007, Shihen Vietnam has been carrying out production activities as our second overseas plant. With a very competent workforce, the company produces low-cost, high-quality products in a stable manner.

Lot 2, Road TS7, Tien Son Industrial Park, Tam Son Ward, Bac Ninh Province, Vietnam TEL +84-222-3734-246 FAX +84-222-3734-249

ltems Power supply for LED lighting, switching power supply



## Hanoi Branch, SHIHEN VIETNAM CO., LTD

We design electric power equipment and products under the guidance of our technical staff.

VIT Tower 14F, 519 Kim Ma, Ngoc Khanh, Ba Dinh, Ha Noi, Vietnam TEL +84-243-2019-389

ltems produced Designing electric power equipment and products



#### SHIHEN Precision Mold Trade (Dongguan) Co., Ltd.

Founded in 2013, this company is based in Guangdong province, home to many automobile manufacturers and a large market for molds.

Room 610, Mingdian Building, No. 118 Changzhong Road, Chang'an Town, Dongguan City, Guangdong Province, China

TEL +86-769-8702-9980 FAX +86-769-8258-5935



Items produced Purchasing and selling dies (precision dies and resin mold) and die parts

Profile As of July 1, 2025

#### **■**Overview of the company

Company name Shihen Technical Corporation

Address of the head office 1-97 Sakuragawa 2-chome, Tadotsu-cho, Nakatado-gun, Kagawa

Establishment August 31, 1946

Nature of business Main operations include the production, repair, sales/purchase, and import/export of transformers, other

electric machinery and equipment, mechanical equipment in general as well as design and contracting of electrica constructions. Freight forwarding business. Generation and sale of electricity from renewable

energy sources.

Capital fund 318.5 million yen

End of fiscal year End of March (once a year)

Banks Chugoku Bank, The Hyakujushi Bank, MUFG Bank, Mizuho Bank and The Iyo Bank

Number of employees 465 Lot space 121,121  $\vec{m}$ Building 48,236  $\vec{m}$ 

#### **Permission for specified construction business**

Permission number #3641, permitted by the governor of Kagawa (Special-3)

Date of the permission November 28, 2021 (valid until November 27, 2026)

Type of construction Electric work

business

#### Registration, etc.

Electric construction work Governor of Kagawa registration #13010 (general purpose, electric construction for in-house uses)

Type I cargo transportation work Shikoku Transportation Bureau Shikoku Transportation Cargo #343

Electric heating device manufacturing work

AC electric machinery and equipment production work

Director of Shikoku Economy and Industry Bureau

Director of Shikoku Economy and Industry Bureau

#### ■Board members

Tadashi Kojima, Chairman

Hiromasa Matsumoto, President and Chief executive officer Shingo Wada, Senior Managing director and Representative executive officer

Katsuhiko Fujiwara, Senior Managing director

Katsuyuki Matsubo, Managing director Takeshi Yamamoto, Managing director

Hiroshi Takai, Director Yuji Katayama, Director Yasutaka Okada, Director Hideshi Saiga, Director Kazuo Kamo, Director Seiji Miyazaki, Director Kazuki Kondo, Director Ichiro Tokai, Auditor Atsushi Nakano, Auditor

#### ■Ratio of sales by equipment

