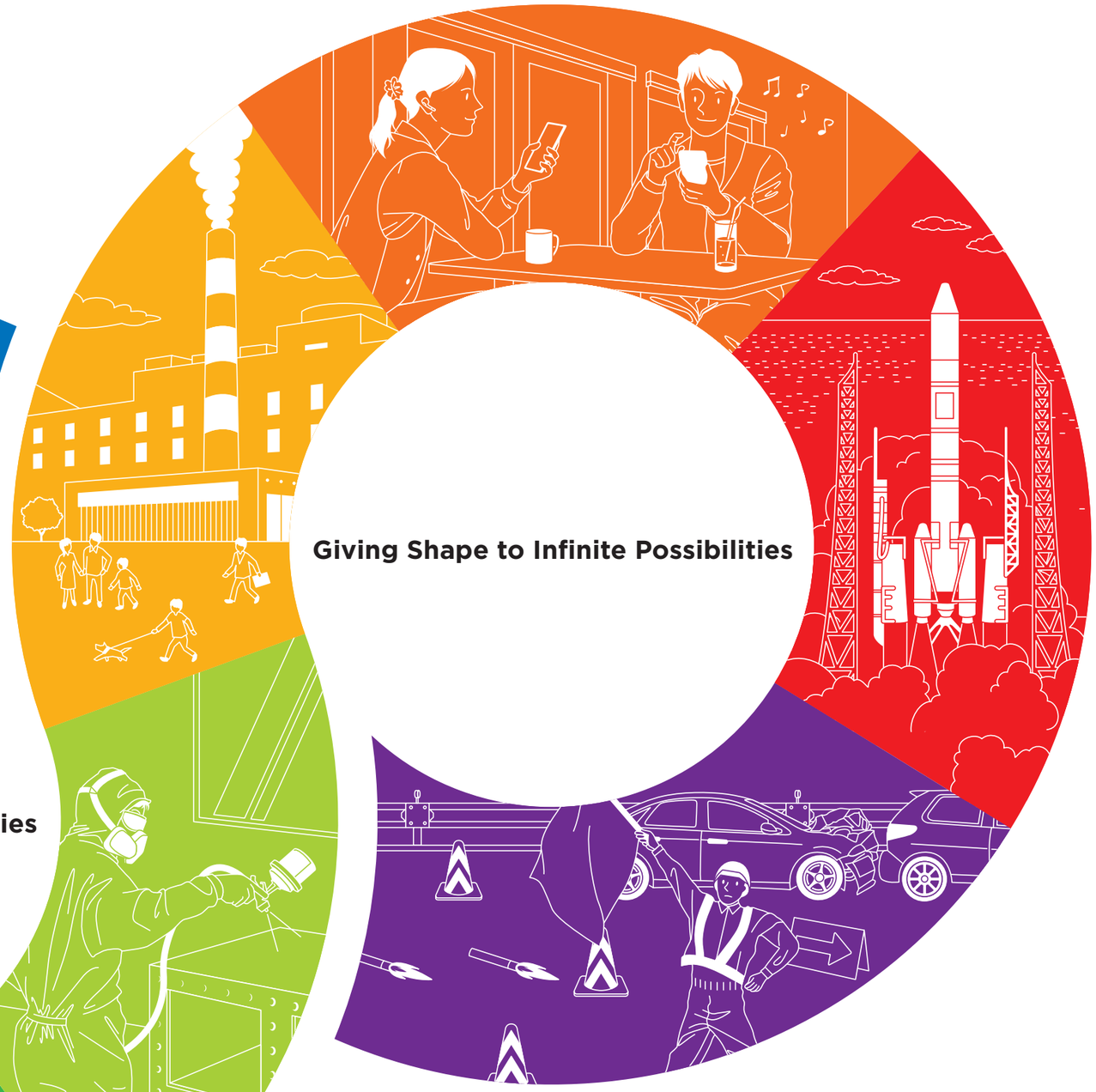

Carlit

CORPORATE GUIDE

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Greetings

The Carlit Group is aiming for the next 100 years through the power of chemistry and technology.

Hirofumi Kaneko, Representative Director and President & CEO

The Carlit Group celebrated its 100th anniversary in 2018.

Our management philosophy, “For Confidence and Infinite Challenges” is based on “Strenuous Efforts,” which is the spirit of our founder, Soichiro Asano, who, despite adversity, rose to the occasion and never gave up, creating businesses needed by society with an indomitable fighting spirit.

The Carlit Group supports people’s lives in a variety of situations. We will continue to support people’s future lives by reinforcing our existing businesses, which are reliable and have proven track records, and by taking on R&D and new business development initiatives. We will also actively work to address climate change, invest in human capital, further strengthen our governance structure, and upgrade our business infrastructure to realize more efficient operations.

We are aiming toward the next 100 years by putting the trust of our customers and other stakeholders first, and by going back to the spirit of our founding and aggressively tackling social issues.

Founding Spirit

“Strenuous Efforts”
(Calligraphy by Soichiro Asano)

Our founder, Soichiro Asano, established the Asano zaibatsu in his own lifetime and was called the “King of Cement” and the “Father of the Keihin Industrial Zone”. His repeated setbacks and challenges to overcome them made him known as “a man who always rises up after repeated setbacks”.

Management Philosophy

For Confidence and Infinite Challenges

The Group’s management philosophy, “For Confidence and Infinite Challenges,” is a modern take of “Strenuous Efforts,” which was written in calligraphy by founder Soichiro Asano. If “Strenuous Efforts” was the spirit of our founding, “For Confidence and Infinite Challenges” is the spirit of our current era.

Raison d’etre (Purpose)

Providing “Relief” and “Prosperity” through reliable manufacturing and services

Our Vision (Ideal Carlit Group in 2030)

To contribute to a sustainable society by combining the power of “chemistry” and “technology” to support people’s happy lives

Our Values (Code of Conduct)

1 Customer First Policy
Earn customer trust by understanding their needs and providing products and services that meet those needs

2 Safety First
Deliver high-quality, safe products and services that customers and society demand with a sense of urgency

3 Social Contribution
Consider the problems around us as our own and fulfill our responsibility to society

Corporate Slogan

Giving Shape to Infinite Possibilities

In 2018, we celebrated 100 years since our founding, and as a new start, we formulated a corporate slogan that resembles the logo of Carlit, which represents infinity (∞).

Origin of the Company Name

The Company was established when Soichiro Asano, our founder, introduced Carlit explosives technology from Sweden with the aim of achieving domestic self-sufficiency in explosives. Our name is derived from this “Carlit explosive,” and its raw material, ammonium perchlorate, is still used today as a raw material for solid propellants in the rocket and defense industries.

Carlit by the Numbers

(As of October 1, 2024)

Flares: Domestic market share

of more than **80%**

We supply more than 80% of the flares installed at the foot of the passenger seat for domestic automobiles.

Solid propellant material for rockets and defense missiles

Domestic production **100%**

We have been providing these products since 1964, using our core electrolysis technology and our expertise in handling hazardous materials.

Hydroelectric power generation

Approx. **18.6** million kWh per year

All of the electricity used at the Gunma Plant is provided by renewable energy generated by the company’s hydroelectric power plant, the Koto Hydroelectric Power Plant.

Founding

1918

Founder Soichiro Asano obtained patent rights from a Swedish company to manufacture and sell Carlit explosives, which primarily consisted of salt and electricity, in order to break away from the dependence on imports for industrial explosives.

2022

Listed on the Prime Market of the Tokyo Stock Exchange

The Company was first listed on the Tokyo Stock Exchange as Japan Carlit in 1949, and was listed on the Prime Market of the Tokyo Stock Exchange following the market restructuring in 2022.

Number of Group companies

11

The Group has 38 bases throughout Japan and overseas.

Number of employees (as of June 30, 2024)

1,081

Human resources are one of a company’s most important resources. To boldly continue taking on the challenge of a “next 100 years,” we will further promote investment in people.

The History of Carlit

Value That Carlit Has Created in Society

1918 ~ Founding and Post-World War II Development

1918 At the time, dynamite, which was dependent on imports, was the main type of industrial explosive, but Soichiro Asano, our founder, obtained patent rights from a Swedish company to manufacture and sell Carlit explosives in Japan, which could be produced domestically. The company began production the following year.

1928 Based on the belief that owning a private hydroelectric power plant was essential for our development, the Koto Hydroelectric Power Plant was constructed.

1946 The Ministry of Transportation (now the Ministry of Land, Infrastructure, Transport and Tourism) requested that we develop a signal flare tube due to the needs for signaling devices to prevent accidents. We began production and received large orders.

1964 When the National Defense Agency (now the Ministry of Defense) and research laboratories at the University of Tokyo began developing rockets, ammonium perchlorate was identified as a raw material for solid propellants. As the main raw material for Carlit explosives, we were the only manufacturer in Japan of ammonium perchlorate, and began developing and manufacturing it for use in solid propellants.

1983 ~ The New Carlit, Emerging from a Business Downturn

1983 Utilizing our accumulated chemical technologies, we became the first contract organization for hazard assessment testing in Japan. We contributed significantly to the establishment of the Hazardous Materials Confirmation Test under the Fire Service Act.

1984 We established the Central Research Laboratories (now the R&D Center) and focused on the development of new products.

1985 We contributed to the improvement of capacitor performance by developing the organic conductive material "TCNQ complex," and entered into the field of electronic materials.
While sales of existing products were sluggish due to deteriorating business confidence in Japan, the electronic materials business drove sales.

1991 JC Beverage (now JC Bottling) was established as a result of considering expansion in business segments other than Chemical Products.

1994 Focusing on the electronics industry led to the establishment of Silicon Technology Corporation.

2013 ~ Establishment of the New Carlit

2013 We established Carlit Holdings.
We established a Battery Laboratory in response to the need for improved battery performance and safety.

2018 We celebrated the centenary of the Company's founding.
We undertook a major renovation of the Koto Hydroelectric Power Plant to continue our environmentally friendly business.
We expanded business domains and markets through mergers and acquisitions.
2012 Fuji Shoji Co., Ltd., Namitakiko Co., Ltd.
2013 General Design Co., Ltd.
2014 Toyo Spring Industrial Co., Ltd.

2024 Moving from a pure holding company structure to a business holding company, the Company will undertake an absorption-type merger involving Japan Carlit Co., Ltd. and Silicon Technology Corporation.

History of Products and Services

1919 Start of production and sale of Carlit explosives
Start of production and sale of abrasive material "Sakrandam"
1946 Start of production and sale of railway signal flares
1949 Start of production and sale of "Dezorate" herbicide
1953 Start of production and sale of textile bleaching agent "Silbrite"
1955 Start of production and sale of sodium chlorate for pulp bleaching
1964 Start of production and sale of "ammonium perchlorate" as a raw material for solid propellants for rockets
1966 Start of production and sale of "HIFLARE," an automotive emergency flare
1971 Start of production and sale of "ROAD FLARE," a highway signal torch tube
1975 Start of production and sale of "Hypocell," a sodium hypochlorite electrolysis generator

1960 Start of production and sale of non-hem spring washers
1973 Start of production and sale of thin plate springs
Start of production and sale of "Anchor" for heat-resistant refractory materials

1951 Start of sale of coating materials
1970 Start of coating business
1980 Start of designing water supply and sewerage facility structures
Start of engineering plant business

1983 Start of production and sale of "Exeroad" metal electrode
Start of contract work for hazard assessment testing
1985 Start of production and sale of organic conductive material "TCNQ complex"
2001 Start of production and sale of conductive polymer aluminum solid electrolytic condenser "PC-CON"
2002 Start of production and sale of power semiconductor substrate "ST-Wafer"
2006 Start of production and sale of "HIFLARE +PICK," an automotive emergency safety torch with glass breaker

2013 Established a battery laboratory
2017 Developed "HT Silicon," an optical material for far infrared rays
Construction of rocket propellant research facility
2021 Start of high-flatness wafer manufacturing business
2023 Start of expansion of ammonium perchlorate production facilities.
2024 Started construction of the second battery testing laboratory.

1992 Start of operation of No. 1 can line
1997 Startup of operation of No. 2 can and 500-ml PET lines
2007 Obtained Hazard Analysis and Critical Control Points (HACCP) certificate
2010 Introduction and startup of operation of NS Line, an environmentally friendly beverage bottling system
2011 Simultaneous launch of three lines (can, PET, NS)

1985 Established an integrated framework for precision pressed products
1997 Start of production and sale of dust collector component holders

2017 Start of architectural design for the private sector

Chemical Products Business | Bottling Business | Metal Working Business | Engineering Business

* The history of each company's products and services includes those prior to the establishment of the Group

Net Sales (Millions of yen)

1918

Carlit explosives

1928

Koto Hydroelectric Power Plant

1964

Ammonium perchlorate
(Used as a solid propellant material for rockets)

1966

Flare

1983

Metal electrode "Exeroad"

1985

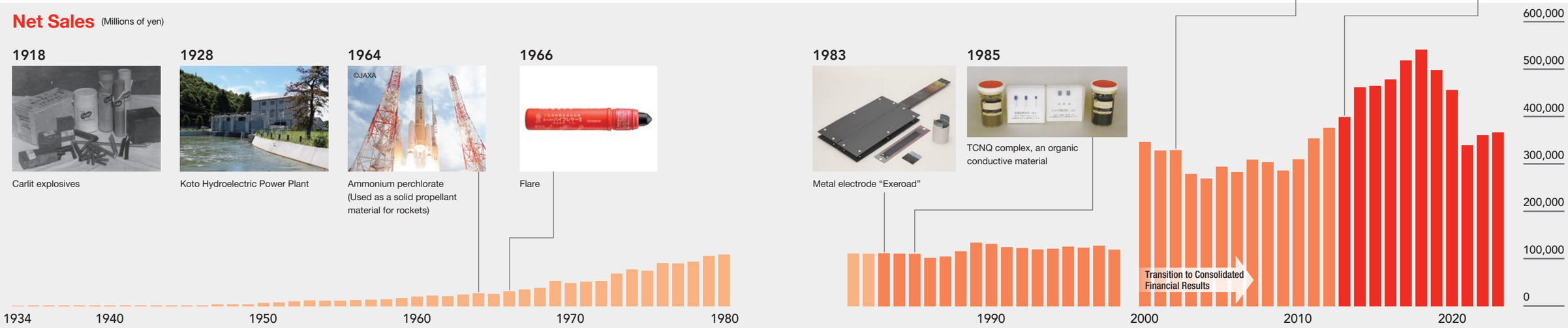
TCNQ complex, an organic conductive material

2002

Semiconductor

2013

Battery laboratory



Helping Society and Industry Flourish through Four Core Business Domains

Cultivated Strengths

Human Capital

Our human capital operates under the corporate slogan “Giving Shape to Infinite Possibilities”. We proactively invest in human capital to support the stable and sustainable development of the Group.

Social and Relationship Capital

We strive to increase corporate value with trust based on more than a century of history and the strength of our brand in diverse markets.

Manufacturing Capital

We possess highly unique manufacturing technologies, including expertise in handling hazardous materials and an integrated production system.

Intellectual Capital

Of the core technologies we have accumulated since our foundation, we focus on four areas: electrodes, rocket propellants, semiconductors, and new functional materials, boldly working to realize a sustainable society.

Financial Capital

We make the most of our sound and favorable financial position and actively pursue initiatives such as growth and ESG investments.

Natural Capital

The Shibukawa Plant, which is adjacent to the Tone River, and the Koto Hydroelectric Power Plant, which uses the difference in elevation of the riverbed to reduce the burden on the environment, provide new value to society by taking advantage of our abundant water resources.

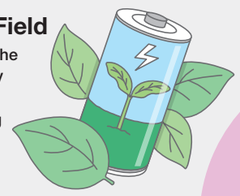
Carlit’s R&D Strengths

The era has arrived where dreams are no longer just dreams.
“Technology is merging and evolving at an accelerated pace, changing the world. Solar power becomes the main source of energy, AI becomes part of our daily lives, driving and transportation are innovated, and space becomes within our reach”

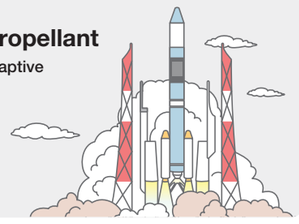
This accelerated progress requires new materials in a short period. We will continue to innovate and advance Carlit’s core technologies to create materials that meet the needs of a changing world and new markets. We are boldly committed to realizing a sustainable society by integrating our core technologies with new markets.

Carlit's Core Technologies

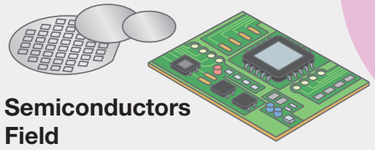
1. **Electrodes Field**
   Commercializing the “highest efficiency electrodes” we are developing



2. **Rocket Propellant**
   Expanding adaptive development



3. **Semiconductors Field**
   Research and development, and supply of special customized, small-diameter, high-functionality wafers



4. **New Functional Materials Field**
   Innovation of core technologies in conductive materials and photonic materials

Our Four Pillars Utilizing Our Strengths

Chemical Products Business

Carlit Co., Ltd.
Japan Carlit (Shanghai) Co., Ltd. Japex Co., Ltd.

▶P.8

We support people’s lives with our proven chemistry-related technologies, including emergency safety flares that protect people’s safety, ammonium perchlorate, a raw material for rocket propellants, functional materials and silicon wafers used in IT equipment, and a material assessment service that conducts evaluation tests on everything from chemical substances to battery devices.

Product List

- Industrial explosives
- Signal flares
- Material assessment tests
- Industrial chemicals
- Agrichemicals
- Explosive raw materials
- Electronic materials
- New functional materials
- Abrasive and polishing materials
- Silicon wafers

Bottling Business

JC Bottling Co., Ltd.

▶P.14

We undertake the contract manufacturing of bottled and canned beverages, which are essential commodities for people’s daily lives. Equipped with a full range of production facilities, we have established an integrated production system for everything from mixing, filling, packaging, and inspection, allowing us to produce and supply mainly tea products stably and efficiently.

Product List

- Contract manufacturing of PET bottles and cans for beverages

Metal Working Business

Namitakiko Co., Ltd. Asia Giken Co., Ltd.
Toyo Spring Industrial Co., Ltd.

▶P.15

We contribute to industrial development by using our proven technology to produce heat-resistant metal parts for furnaces that support municipal waste incinerators and biomass power plants, as well as metal parts for automobiles and construction machinery.

Product List

- Heat-resistant metal parts for furnaces
- Metal working parts

Engineering Services Business

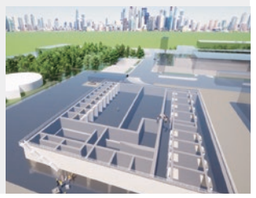
Carlit Sangyo Co., Ltd. Minamisawa Construction Co., Ltd.
Fuji Shoji Co., Ltd. General Design Co., Ltd. SD Network Co., Ltd.

▶P.17

We are engaged in a wide range of business activities, including the sale of industrial paints and contracting for painting work, the design, management, maintenance, and operation of water and sewage treatment facilities and buildings, termite extermination, and real estate leasing.

Product List

- Design and management of water and sewage treatment facilities, etc.
- Engineering and construction work
- Sale of paints and painting work



Sustainability Initiatives

To achieve sustainability, it is essential to pursue the creation of social value while also striving for growth.
We aim to be a company trusted by society by realizing “profitable growth” and “ESG” toward the realization of a sustainable society.

Basic Policy for Sustainability

Through manufacturing and the provision of services under our management philosophy, the Carlit Group intends to contribute to the resolution of social issues with the aim of realizing a sustainable society.

The Carlit Group’s Four Materialities (Key Issues)

Together with the formulation of our medium-term management plan, we have identified the following materialities.

Environment

Contributing to the creation of an affluent society

- Contributing to life and the environment
- Contributing to a smart society
- Promoting supply chain management
- Promoting climate change action and environmental management

Society

Creating a safe, secure, and vibrant work environment

- Employee satisfaction and health management
- Ensuring human resource training and diversity
- Addressing work system reform
- Maintaining a safe and hygienic work environment

Coexistence with society

- Contributing to safety and security
- Communication with stakeholders
- Contributing to sustainable development of local communities

Governance

Strengthening our management foundation for reliability, transparency, and profitability

- Ensuring credibility regarding the determination of material facts
- Legal compliance
- Advanced cyber security and DX implementation

Example Initiatives

Koto Hydroelectric Power Plant

We operate our own hydroelectric power plant for environmental conservation. By securing energy without damaging the natural environment of Gunma Prefecture, it contributes to reducing CO_2 emissions by more than 8,300 tons per year.

© Gunma-Chan / Gunma Prefecture

Gunma-Chan Children’s Support Project

A portion of sales of DEZORATE AZ Granules, an environmentally friendly herbicide that breaks down quickly in soil, was donated to Gunma Prefecture’s child support measures.

Manufacture of products that contribute to the SDGs, such as flares and retainers

Carlit Co., Ltd. manufactures flares that reduce the spread of damage from traffic accidents, and Namitakiko Co., Ltd. manufactures retainers that collect dust, dioxins, etc., from cement plants and waste incinerators.

Prefectural forest maintenance partner project

In Gunma Prefecture, a prefectural forest maintenance partner project is carried out to maintain and conserve prefectural forests. Carlit Co., Ltd. and JC Bottling Co., Ltd. participate.

Benefit-type scholarship program

A non-refundable scholarship program designed to support students who have difficulty attending school for financial reasons so that they can study with peace of mind.

CHEMICAL PRODUCTS BUSINESS : EXPLOSIVES

Industrial Explosives / Signal Flares / Fireworks

Carlit Co., Ltd.

TEL +81-3-6893-7070
FAX +81-3-6893-7050
URL www.carlithd.co.jp

Contributing to safety and the prosperity of industry with longstanding technologies and expertise

Japan Carlit has engaged in the development, manufacturing, and sales of industrial explosives essential to crushed stone and limestone quarrying and civil engineering projects for nearly a century.

We have earned a strong reputation in a range of fields in this segment for our emulsion explosives and ammonium nitrate fuel oil explosives, which are both safe and greatly boost work efficiency. Utilizing our technologies and knowledge in the field, we have developed automotive emergency flares and signal flares for road and railway work, greatly supporting automotive and railway safety.

In addition, we sell explosive raw materials and industrial chemicals to fireworks manufacturers. We also provide advice to make fireworks manufacturing safer and will keep supporting Japan’s traditional pyrotechnics culture with safe, high-quality products.

Ammonium Nitrate Fuel Oil Explosive ANFO Explosive Emulsion Explosive Highjex

Industrial explosives are essential to quarrying limestone needed for civil engineering projects and concrete production. Our emulsion explosives and ammonium nitrate fuel oil explosives have earned a strong reputation in a range of fields for safety and greatly improved work efficiency.

Signal Flares

Our extensive lineup of automotive emergency flares and signal flares for expressway and railway applications are widely used in number of locations.

These flares and signals have earned a strong reputation for their weather resistance and are easily visible even in the daytime.

Raw Materials for Fireworks

We have been handling raw materials for fireworks since 1950 and currently market them to fireworks manufacturers across Japan. We have established a structure that can respond quickly even to fireworks manufacturers’ needs for high-mix, low-volume supply.

CHEMICAL PRODUCTS BUSINESS : MATERIAL ASSESSMENT SERVICE

Material Hazard Assessment Testing / Batteries Safety Testing / Charging, Discharging and Cycling Testing of Secondary Batteries

Carlit Co., Ltd.

TEL +81-3-6893-7070
FAX +81-3-6893-7050
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We have built up a range of advanced explosives technologies over the years. This led to our participation in the drafting of the Guidelines on Preventing Accidents Involving Unstable Materials by the Japan Chemical Industry Association. As Japan's first contractor of material hazard assessment testing for chemical substances, we also helped to establish hazard verification testing compliant with changes made to the Fire Service Act.

To verify product safety, products must be investigated when various types of loads are added during the development process. Our testing laboratory within the Akagi Plant performs a range of testing based on customer needs. We also opened a laboratory within the Gunma Plant that can test the charging, discharging and cycling of secondary lithium-ion batteries, which enables us to meet the various demands of our customers.

Material Hazard Assessment Testing

Previously the laboratory focused on testing compliance with explosives performance testing, but it has expanded its scope to include safety testing in response to rising demand from society. Chemical substance safety tests include hazardous goods confirmation testing under the Fire Service Act, testing for classification of dangerous goods based on the U.N. recommendation on the transport of dangerous goods, and general testing and safety performance testing for secondary lithium-ion batteries.

United Nations Advisory Testing

This is a confirmation test for classification of hazardous goods based on the U.N. recommendation, evaluating whether or not a material is an oxidizing substance.

Our testing laboratory performs contract testing that fully complies with domestic and international laws and recommendations as well as quality evaluations of chemicals.

Large Scale Testing Range

We developed the No. 3 Outdoor Testing Range to expand our testing capabilities from conventional closed pits and indoor laboratories to an expansive outdoor area.

This facility can perform a broad range of testing, from pilot-scale testing for chemical plants to load bearing tests for large equipment or machinery.

Charge-Discharge Cycling Testing

We handle contract work for secondary lithium-ion battery charge-discharge cycle and storage testing. Our facility features a full complement of testing equipment for large cells and modules geared particularly to automobiles and stationary equipment. We can satisfy just about any need when it comes to the charge-discharge testing or safety performance testing of storage batteries.

CHEMICAL PRODUCTS BUSINESS : CHEMICALS

Industrial Chemicals / Agricultural Chemicals / Electrodes and Plants / Fine Chemicals

Carlit Co., Ltd.

TEL +81-3-6893-7070
FAX +81-3-6893-7050
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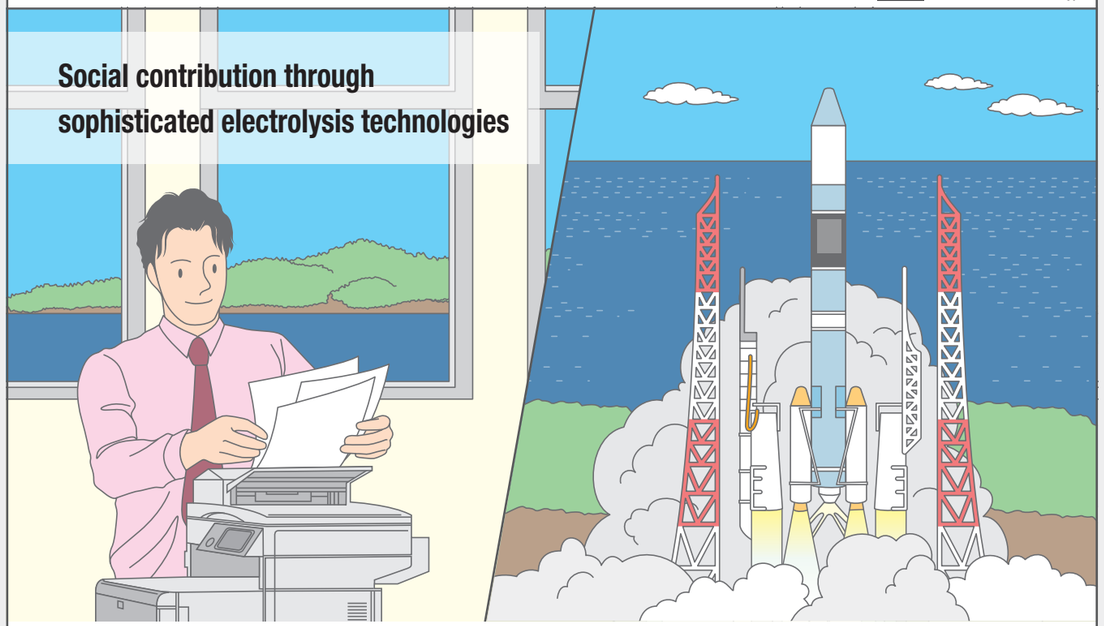
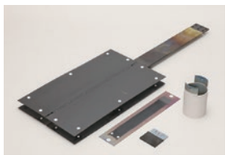


We have an established history and track record in manufacturing chemical products using electrolysis. We manufacture oxychloride compounds used in a wide range of sectors; these include sodium chlorate ($NaClO_3$ /$NaClO_2$) used as bleach by the paper manufacturing and textile industries and ammonium perchlorate used as a raw material in solid propellants for rockets, which we are the only company in Japan to manufacture. We can accommodate a variety of needs, from daily-life essentials to cutting-edge sectors, including metal electrolysis used for plating, metal recovery, seawater electrolysis, saltwater electrolysis and wastewater treatment, agricultural chemicals used in farms and landscaping, and fine chemicals used in pharmaceutical intermediates, electronic materials and functional materials.

©JAXA

Ammonium Perchlorate

We are the only company in Japan to manufacture ammonium perchlorate, which is used as a raw material in solid propellants for rockets used in the space business and defense missiles.



Metal Electrolysis Excerode

Our long-standing electrode and electrolysis technologies, including the metal electrolysis process Excerode, used in electrolysis and plating surface treatment applications, have established a strong reputation for safety and reliability.

Agricultural Chemicals

We are committed to manufacturing agricultural chemicals that are friendly to both people and the environment. These include Dezorate, which is a powerful herbicide safely used only where needed, as well as treatments and prevention for powdery mildew and fertilizers that contain a large amount of all-natural ingredients.

Perchloric Acid

Our perchloric acid is used in a wide range of sectors, from test reagents for metal analysis to plastic resin stabilizers, electronic materials and organic synthetic catalysts.

CHEMICAL PRODUCTS BUSINESS : ELECTRONIC MATERIALS

Electronic Materials / Functional Materials

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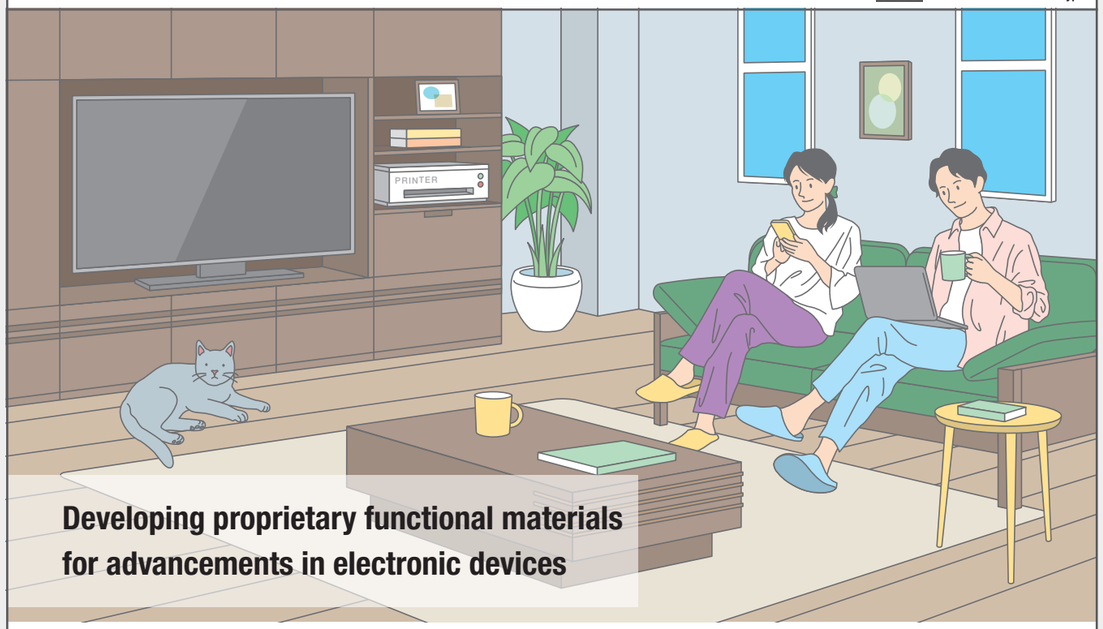

Developing proprietary functional materials for advancements in electronic devices

Electronic devices, for which demand has grown sharply with advancements in today's IT society, require unique functional materials. These include electrolytes used in electrolytic capacitors that determine device performance, electrolysis solution for electric double-layer capacitors, electrolytes used in coin-shaped batteries, near-infrared-ray (NIR) absorbing dyes needed for Thermal Barrier Film and Optical Applications, anti-static agents for protective films needed during the LCD production process, charge conditioning agents needed for color toner used in laser printers, and conductive imparting agent used in various printer rolls. We manufacture each of these functional materials on a proprietary basis, for use behind the scenes in electronic devices. Moving forward, we will continue to develop products that support the evolution of electronics.

Specialty Polymer Cathode Materials for Capacitors Pyrrole EDOT

Specialty polymer cathode materials for capacitors are used in a multitude of electronic devices to eliminate noise within circuits and as a smoother when switching power sources.

Electrolyte for electric double layer capacitor KKE

Electric double layer capacitor is used in power regeneration applications such as port cranes and forklifts. KKE is contributing as a dedicated electrolyte.

Charge-control agent LR-147

LR-147, which is used in copiers and printers, is a metal-free negative charge regulator that emphasizes environmental safety.

CIL

Ion-conductive imparting agents, used in protective films attached to mobile phone and other displays, eliminate static electricity caused from friction that occurs when removing the protective film. They also prevent dust from adhering to the display.

CHEMICAL PRODUCTS BUSINESS : CERAMIC MATERIALS

Abrasive Materials / Polishing Materials / Refractory Materials

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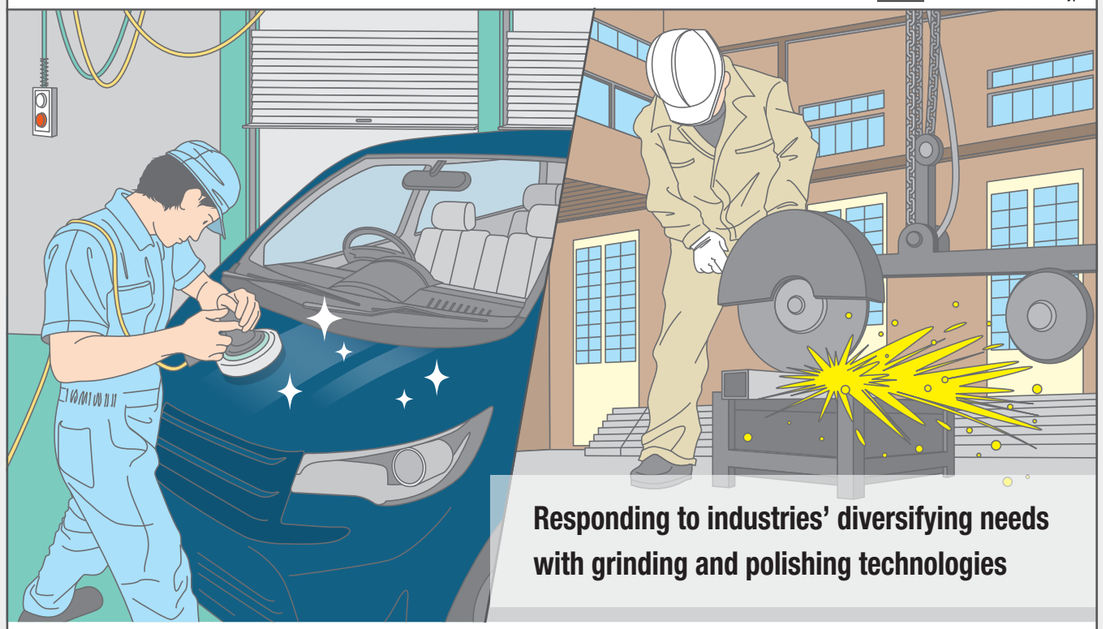
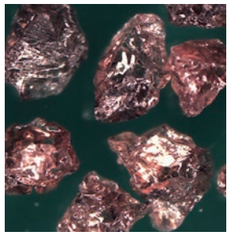


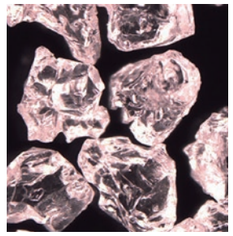
Responding to industries' diversifying needs with grinding and polishing technologies

We manufacture, process and sell abrasive materials used as a raw material for grinding wheels, coated abrasives and refractory materials essential to the industries that play an integral part in our lives, including steelmaking, automobiles and machinery. We have earned a strong reputation from a number of industries for supplying stable, high-quality products that meet a range of needs through our Sakurundum series and Cutrundum series as well as Sakurux. Abrasive/polishing materials require a superior degree of accuracy and quality, since they are required by industries that are continuously evolving.

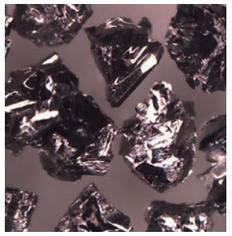
We will continue to pursue the possibilities of abrasive/polishing materials using our trusted technologies and tackle new challenges in the field.



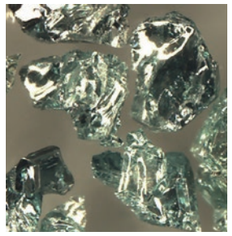
Sakurundum A



Sakurundum WA



Cutrundum C



Cutrundum GC

Abrasive Polishing Materials

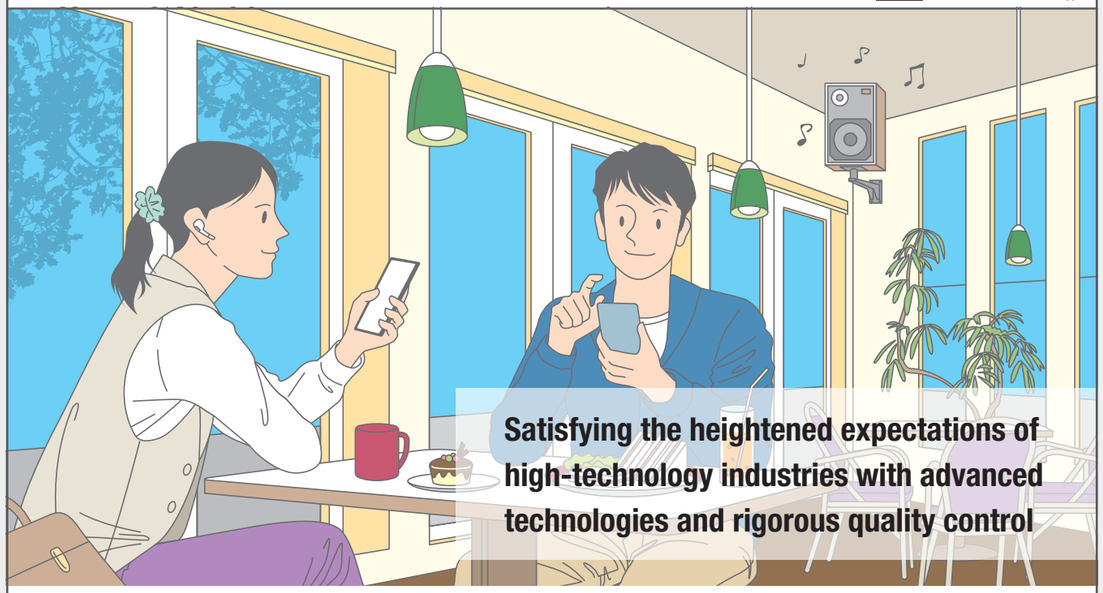
Sakurundum A is used for vitrified abrasive wheels. Sakurundum R is employed for resinoid abrasive wheels and blasts. Sakurundum 40SH is utilized for sharpening in specialized grinding applications. Sakurundum CA is ideal for coated abrasives. Sakurundum WA and Sakurundum MCA provides sharper grinding. Cutrundum C and Cutrundum GC are used for glass ceramics. We are committed to providing high-quality abrasive polishing products essential to the growth and prosperity of industry.

CHEMICAL PRODUCTS BUSINESS : SILICON WAFERS

Silicon Wafers

Carlit Co., Ltd.

TEL +81-3-6893-7070
FAX +81-3-6893-7050
URL www.carlithd.co.jp



Satisfying the heightened expectations of high-technology industries with advanced technologies and rigorous quality control

Silicon wafers are used as a base material for diodes, transistors and integrated circuits that are essential to computers, mobile phones, audiovisual devices, LED lighting and automotive electronics.

Silicon Technology wins high marks for its advanced technological capabilities and production equipment that offer an integrated production line ranging from silicon monocrystalline growing to mirror wafers and individual processing.

We have won a strong reputation among customers in Japan and overseas as a dedicated small-diameter silicon wafer manufacturer.

As the semiconductor market continues to grow, there will be a need for special-quality, high-performance wafers made through special manufacturing processes.

Going forward, we will develop products that meet the needs of next-generation, high-technology industries and contribute to the development of a more prosperous lifestyle and society.

Silicon ingots

Visual surface inspection

High-value-added Silicon Substrates

We will change our perspective from providing silicon wafers for semiconductor applications and instead actively develop and provide “special-quality, high-value-added silicon substrates made through special manufacturing processes designed exclusively for bonded wafers and film deposited wafers” for applications such as microelectromechanical systems (MEMS), RF and Opto, which have not been addressed so far.

We have already reached the world’s highest accuracy in high flatness wafers for bonding and expect significant growth as the market expands.

BOTTLING BUSINESS

PET Bottled / Canned Beverages

JC Bottling Co., Ltd.

TEL +81-3-6228-7735
FAX +81-3-6228-7736
URL www.jcbottling.co.jp (Japanese only)

Processing PET bottled and canned beverages safely and reliably

PET bottled and canned beverages have become an essential part of our daily lives, since they can be purchased just about anywhere. JC Bottling efficiently and stably produces and supplies a multitude of beverage products using its production equipment featuring hot-water aseptic filling system, offering integrated services that range from preparation to filling, packaging and inspections.

We perform rigorous quality management using the Hazard Analysis and Critical Control Points (HACCP) system. This facilitates product manufacturing that is friendly to both people and the environment, and ensures that only the safest and most delicious refreshing beverages are delivered to customers.

We acquired FSSC 22000 certification, an international standard, in 2020. We will continue to utilize this certification to ensure internationally accepted food safety, to certify the safety of our products, and as a strength of the company externally.

Filler

Conveyor line

Kneaders

Warehouse

PET Line (Hot Pack)

This line heats and sterilizes beverages such as green tea, oolong tea, brown rice tea, roasted green tea, and jasmine tea, and fills 275 ml to 600 ml PET bottles at high temperature. The products are then passed through equipment such as extractors, blending tanks, sterilization equipment, filling machines, pasteurizers, and labelers to complete the process.

It has a production capacity of 600 bottles per minute and can produce 6 million cases per year.

NS Line (Aseptic Filling)

This line sterilizes green tea beverages using heat and aseptically fills 345 ml to 600 ml PET bottles that are blow-molded on site at room temperature. The products are then passed through equipment such as extractors, blending tanks, sterilization equipment, filling machines, and labelers to complete the process.

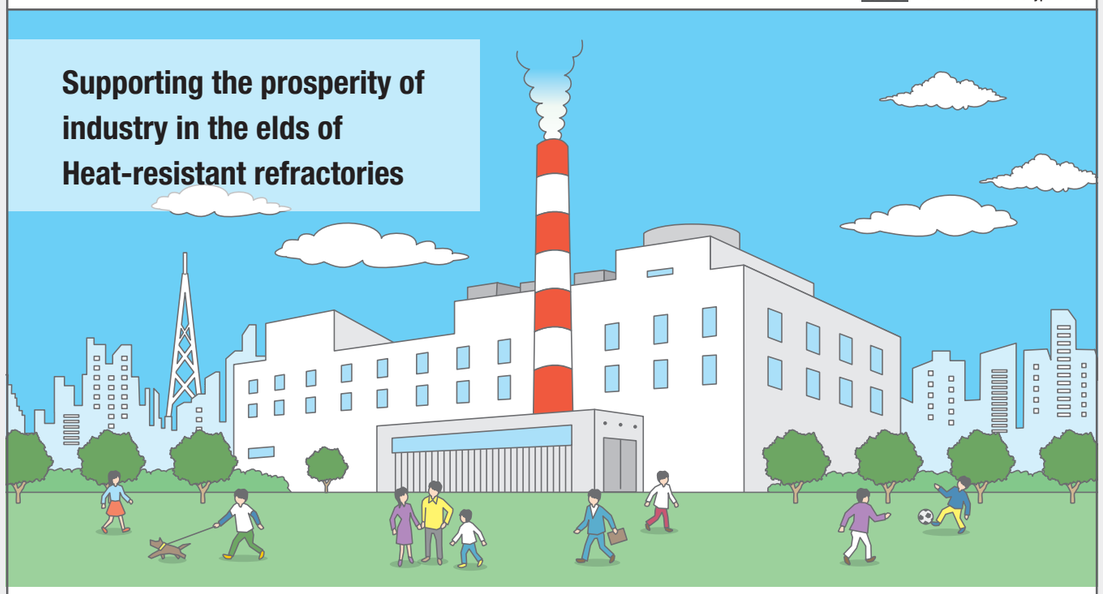
It has a production capacity of 600 bottles per minute and can produce 9 million cases per year.

METAL WORKING BUSINESS

Heat-resistant refractories / Pollution Prevention Equipment Components

Namitakiko Co., Ltd.

TEL +81-6-6553-0155
FAX +81-6-6553-0150
URL namitakiko.co.jp/en/



Namitakiko manufactures and sell various types of heat-resistant refractories and components for pollution control equipment.

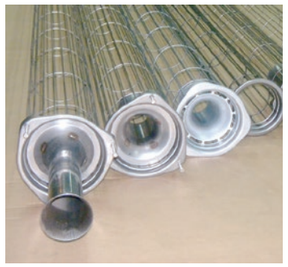
Anchor metals; our main product, are used to hold and secure refractories in a wide range of fields. For example, cement, petrochemical and various incinerators. Various shapes are available depending on the application.

In addition, retainers are used to maintain the dust collection effect of substances such as soot and dioxin in the exhaust gas generated during incineration. We will continue to manufacture high quality products that support the development of diversified industries.

Moving forward, we are eyeing an overseas expansion and are committed to continually maintaining our production of high-quality products that support industries' diversifying needs.

Anchors (heat-resistant metal hardware for use inside furnaces)

Anchors are heat-resistant metal hardware for use inside furnaces to hold or fix refractories in place in a wide range of fields, including petrochemical-related facilities, cement manufacturing facilities, and incinerators employed by urban waste incineration facilities.



Retainers (a component of dust collector of factories and waste incineration facilities)

Retainers are used to maintain collection efficiency and support filter cloth for the filtering of hazardous substances generated by incineration processes or the general dust that occurs during crushing or pulverizing activities in the course of manufacturing and treatment.

Studs

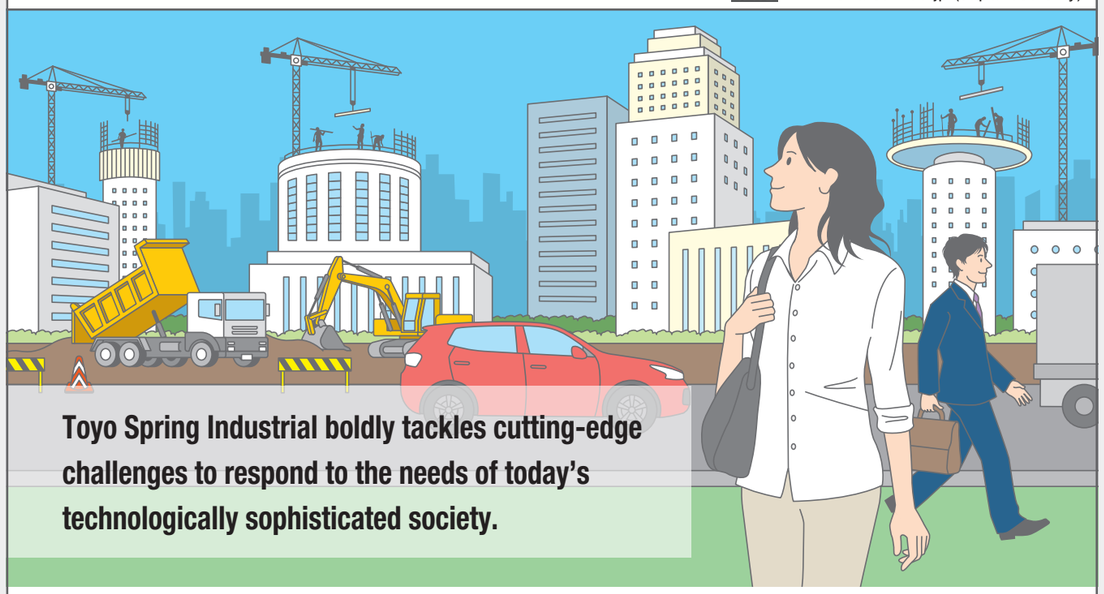
By using our stud welding machines, sparks are generated against the protrusions on the bonding surface of the stud bolt, dissolves the protrusions and bonds them to the base materials. Since the welding is completed in a short time and has little effect on them. Therefore, the stud bolt is used for welding delicate products such as electronic material parts.

METAL WORKING BUSINESS

Various metal spring / Pressed products

Toyo Spring Industrial Co., Ltd.

TEL +81-4-7313-9030
FAX +81-4-7313-9031
URL www.tohatsu-i.co.jp (Japanese only)



As a spring manufacturer, Toyo Spring Industrial started off with spring washer production and has since expanded to flat springs, leaf springs, and precision press products and items, given changes in demand.

We have established a strong business foundation, as we supply products to a broad range of sectors, including automotive, construction machinery, engineering, home electronics and semiconductors.

We will further accelerate our efforts to respond to the electrification of automobiles and advancement of other information and communication systems driven by the global trend towards carbon-free. We strive to further improve our services to our customers and develop a sustainable society.

Spring washers

Flat washers

Washers

We produce a wide range of washers, including JIS-compliant spring washers, wave spring washers, flat washers, and other special shaped washers.

C-type retaining rings

Other flat springs

Flat Springs

We produce spring products that use sheet materials, such as JIS-compliant retaining rings and leaf springs.

Valves and seal fittings

Precision press products

Forming products

Precision Press Products

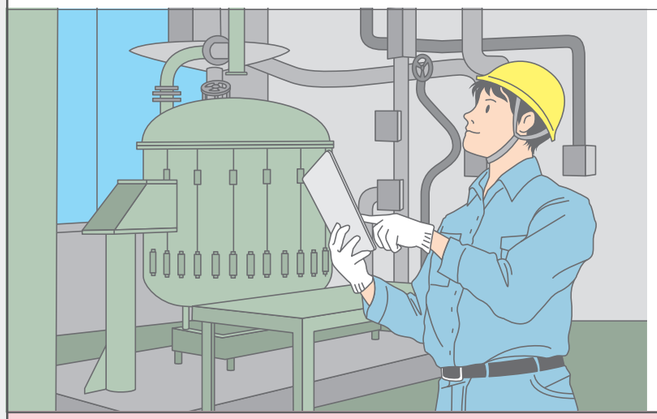
We produce parts used in precision instruments. We provide products ranging from simple to complex and highly precise shapes through our in-house integrated system from die design to production based on individual customer specifications to meet customer satisfaction.

ENGINEERING SERVICE BUSINESS

Engineering / General Construction / Termite Extermination Services

Carlit Sangyo Co., Ltd.

TEL +81-279-23-8818
FAX +81-279-23-8863
URL www.carlitsangyou.co.jp (Japanese only)



Carlit Sangyo provides integrated design, construction, and management services for chemical, chemical, and environmental plants. We also provide housing-related services such as termite extermination.

We are a partner that you can feel free to consult with us on any matter, and we will respond to the trust of our customers based on our wealth of experience.

Sale of Industrial Paints / Contracting for Painting Work

Fuji Shoji Co., Ltd.

TEL +81-6-6458-2521
FAX +81-6-6458-3930
URL www.fuji-syoji.jp (Japanese only)

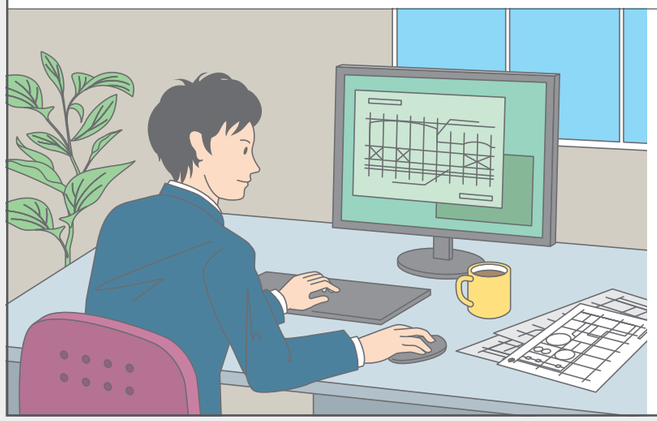
Fuji Shoji sells a range of coating materials mainly for industrial use and heavy-duty coating, and offers painting services for manufactured products onsite at factories as well as at its own paint factory. In this way, it responds to a variety of painting needs, including surface treatment for various manufacturing industries.

Going forward, we will continue to boost expertise in the field of coating materials and paints as an integrated coating company.

Design of Buildings, Water and Sewage Treatment Facilities

General Design Co., Ltd.

TEL +81-3-6206-1061
FAX +81-3-6206-1062
URL www.sougou-sekkei.co.jp (Japanese only)

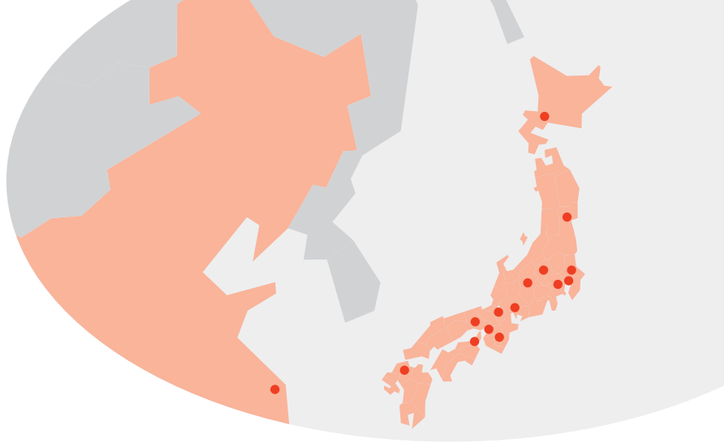


General Design is a leading structural design company that plans large-scale, complex facilities, such as drinking water treatment and wastewater treatment plants which require rigorous design to avoid stoppages during an earthquake or other disaster. A number of water treatment plants created by us are in operation all over Japan, supporting daily life of communities.

Network (As of October 1, 2024)

Company Profile

Company Name	Carlit Co., Ltd.
Established	October 1, 2013
Capital	2,099 million yen
No. of Employees	1,081 (consolidated)



Major Group Companies

	Business description	Base (location)
Chemical Products Business		
Carlit Co., Ltd.	Manufacture and sales of explosives / chemical products / electronic materials / abrasive materials / firework materials and contracting of material hazard assessment testing and battery testing Manufacture and sales of monocrystalline silicon and silicon wafers for semiconductors	Head Office (Tokyo) Akagi Plant (Gunma Prefecture) Nagano Plant (Nagano Prefecture) Toyota Delivery Center (Aichi Prefecture) Shiga Plant (Shiga Prefecture) Koto Hydroelectric Power Plant (Gunma Prefecture) R&D Center (Gunma Prefecture) Gunma Plant (Gunma Prefecture) Hokkaido Branch (Hokkaido) Osaka Branch (Osaka Prefecture) Kyushu Branch (Fukuoka Prefecture)
Japan Carlit (Shanghai) Co., Ltd.	Sourcing and sales of chemical products and electronic materials	Head Office (Shanghai, China)
Japex Co., Ltd.	Sales of industrial explosives	Head Office (Tokyo) Tohoku Sales Division (Miyagi Prefecture) Kansai Sales Division (Osaka Prefecture) Hokkaido Sales Division (Hokkaido) Chubu Sales Division (Aichi Prefecture) Kyushu Sales Division (Fukuoka Prefecture)
Bottling Business		
JC Bottling Co., Ltd.	Beverage bottling/sales	Head Office (Tokyo) Shibukawa Plant (Gunma Prefecture)
Metal Working Business		
Namitakiko Co., Ltd.	Manufacture and sales of various heat-resistant metal parts for furnaces	Head Office and Head Office Plant (Osaka Prefecture) Hari Plant (Nara Prefecture) Nagoya Sales Office (Aichi Prefecture) Shodoshima Plant (Kagawa Prefecture) Tokyo Sales Office (Tokyo) Kyushu Sales Office (Fukuoka Prefecture)
Asia Giken Co., Ltd.	Manufacture and sales of studs and welding machines	Head Office (Osaka Prefecture) Sales Division and Kyushu Plant (Fukuoka Prefecture)
Toyo Spring Industrial Co., Ltd.	Manufacture and sales of various metal springs and pressed products for automobiles and construction machinery	Head Office (Chiba Prefecture) Ishioka Plant (Ibaraki Prefecture) Nagoya Sales Office (Aichi Prefecture) Kashiwabara Plant (Ibaraki Prefecture)
Engineering Services Business		
Carlit Sangyo Co., Ltd.	Engineering and construction work as well as termite extermination services and outsourcing	Head Office (Gunma Prefecture)
Minamisawa Construction Co., Ltd.	Construction and design/ construction of civil engineering works	Head Office (Gunma Prefecture)
Fuji Shoji Co., Ltd.	Sales of industrial paints and painting work	Head Office and Osaka Branch (Osaka Prefecture) Shiga Plant (Shiga Prefecture)
General Design Co., Ltd.	Design and administration of buildings and works as well as sewer, water supply, and effluent treatment facilities	Head Office (Tokyo)
SD Network Co., Ltd.	Design and supervision of construction and consulting services	Head Office (Hyogo Prefecture) Design Office (Osaka Prefecture)

Website Link