



Low-temperature workbench for blood products



Key features of the product

1. Most suitable for maintaining quality in the production process and supply operations
2. Can keep red blood cell concentrates at a temperature of around 4°C .
3. Can keep Fresh-frozen plasma at a temperature of not more than -20°C .

In the production process and supply operations for blood products, this workbench allows users to work efficiently as it prevents increases in temperature, maintains blood products in good quality and keeps them at a low temperature even indoors at room temperature. In Japan, we have been delivering products like this to the Japanese Red Cross Blood Center for more than 30 years, and the product is approved as medical equipment.

Solutions for our clients

We have supplied blood bank refrigerators for blood services mainly conducted by Japanese Red Cross Blood Center. The blood bank refrigerators help to maintain the quality of blood products, which require rigorous temperature management. In addition to blood bank refrigerators, we produce other products tailored to the components of blood products, such as incubator for platelet concentrates, horizontal shakers, low-temperature workbenches, and cold insulator for blood transportation, which are used to store blood in processes from blood drawing to blood supply. Since we have in-house facilities that can handle all processes from planning and design to completion, we can customize products for customers.

Daido Industries INC. <http://www.daido-ind.co.jp> [English](#)
1-6-45, Kusune, Higashiosaka City, Osaka

ISO 9001



FILMIX (Thin-film spin system high-speed mixer)



Key features of the product

1. Can uniformly disperse nanometer-sized particles.
2. Allows particle design by controlling dispersion condition.
3. Prevents secondary agglomeration to ensure long-term stability.

In the production process of battery materials, we have realized nano-level dispersion for lithium ion batteries in particular. We have developed this machine's proprietary mixing principle based on the high-speed mixing technology we specialize in. The principle has been patented in 16 countries.

Solutions for our clients

For emulsification, dispersion, pulverization and kneading needs, we have for more than 80 years been delivering products to a wide range of industries. In recent years, we have been concerned with the global environment and, though batteries are attracting attention as an energy alternative to oil today, we have been doing business with the battery industry for two decades. At present, the latest CDM continuous production systems centered around FILMIX have contributed to the manufacture of lithium ion batteries (particularly for automobile use). In particular, CDM process has allowed the production of battery cells about three times as compared to batch processing, and have improved battery performance.

PRIMIX Corporation <http://www.primix.jp/> [English](#) / [中文](#) / [한국어](#)
8-16-43, Ebie, Fukushima-ku, Osaka City, Osaka

ISO 9001

ISO 14001



Forging high-efficiency induction heaters



Key features of the product

1. Built with a high-capacity low-loss IGBT element
2. Compact with eye-level pass line
3. Minimizes initial non-proper temperature materials.

Forging induction heaters employ a low-loss IGBT-applied inverter and, based on the optimal heating design, have achieved the world's lowest electric power consumption rate. With the use of a compact high-capacity IGBT, we were able to drastically make the size of heaters smaller.

Solutions for our clients

The assumed customers are Japanese and overseas forging companies as well as companies that manufacture automobiles, construction machinery, bearings, agricultural machinery, and general industrial equipment and outsource their forged parts to forging companies. Since we have delivered products to numerous companies in Japan, we are very used to proposing products from the customer's perspective. Therefore, we are continuing equipment development in pursuit of greater energy-savings, and promoting equipment downsizing and price reductions.

Uchino Co., Ltd. <http://www.uchino-tec.co.jp/> [English](#)
5-5-23, Minamitsumori, Nishinari-ku, Osaka City, Osaka

ISO 9001

ISO 14001



FA machines designed for clean rooms



Key features of the product

1. Dust-proof plant that can handle machines to be used in clean rooms
2. Large-scale plant that can handle eighth-generation glass substrates
3. Advanced technologies based on long-cultivated know-how

When creating manufacturing machines used in clean rooms, we must take various important points into account in each production process such as considering the yield in the design stage and taking thorough burr measures in the processing stage. We design and manufacture machines based on long-cultivated know-how and advanced technological capabilities.

Solutions for our clients

We design and manufacture production machines used on production lines of plants mainly of electronics and automobile-related makers. Because we make machines via an in-house integrated production system comprised of design, machining, steel plate welding, assembling, control, and installation, we can quickly deliver products at low costs. As a company specialized in FA machines designed for clean rooms, we are fully equipped with a dust-proof plant that can handle machines to be used in clean rooms, and perform integrated production from processing to assembling in-house. We also make the utmost effort to cooperate with customer requests for reduced costs.

ISHIKOTEC CO., LTD. [http://www.ishikotec.co.jp.](http://www.ishikotec.co.jp/) [Japanese only](#)
5-6-2, Mitejima, Nishiyodogawa-ku, Osaka City, Osaka

ISO 9001

ISO 14001

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp



Mini-tempering machine

G J T



Key features of the product

1. Desktop model that requires less space
2. Can be dismantled and cleaned without tools.
3. Tempering enabled in less time

This digital machine enables users to easily set temperatures for a variety of chocolates. It can make tempering possible in an extremely short time, and can be dismantled and cleaned almost without tools when changing colors. A desktop model that requires less space, the machine can be used in various applications in kitchens and store front.

Solutions for our clients

We manufacture a variety of machines and plants at the request of major confectionery and baking companies. Based on the know-how we have cultivated with machine and plant manufacture, we make mini-tempering machines. The assumed customers are small-scale stores such as those of hotels, restaurants and cake shops. In particular, it is recommended that our products be used by stores that want to use high-quality chocolate but find tempering difficult and time-consuming. Moreover, depending on what kind of innovative approach a store might take, operation of a mini-tempering machine itself can be displayed to customers in the store, which may give a clue to new business.

KATO INDUSTRY CO., LTD. <http://kato-industry.jp/index.html> Japanese only
1-17-5, Haradanaka, Toyonaka City, Osaka



Pulse-free metering pump (Pertinent for injecting liquefied carbon dioxide)

G O J
T M



Key features of the product

1. Super-precise pulse-free metering pump
2. Flow volume reproducibility is deviation 0.1% or less.
3. Allows high-pressure transfer of liquid gas and hardening liquids.

This metering pump has the world's best discharge accuracy and delivers constant rate pumping at all times.
<Features> (1) Can pump hardening and gelling liquids such as isocyanate to extruders.
(2) Can accurately pump liquid gases such as liquefied carbon dioxide to high-pressure section.
(3) Most suitable for accurate coating of films and shells

Solutions for our clients

- (1) Filling to an extruder: Unlike a gear pump, there is no change in discharge flow rate caused by pressure fluctuations, so this product can fill a stable flow rate.
- (2) Accurate transfer of liquid gas: Due to its pulse-free and constant-flow features, this product can accurately fill liquid gas for a long time. Because of the use of special axis sealing, there is minimal leaking.
- (3) Precision coating: Due to its pulse-free feature, it always allows coating to a uniform thickness. Moreover, it will not be affected by pressure changes caused by the clogging of precision filters.

FUJI TECHNO INDUSTRIES CORPORATION <http://www.fuji-techno.co.jp/> English / 中文 / 한국어
2-29-5, Kasuganishimachi, Hirakata City, Osaka

ISO 9001



"Mini-Mini Welder" ultra-miniature resistance welder

O J



Key features of the product

1. Ultra-miniature resistance welder exclusively used for thin film and thin welds
2. Exhibits high reliability in continuous and variable welding.
3. Simple and safe operation that does not require skills to operate

Since their release onto the market in 1987, our welders have been used at work sites where minute and accurate metal processing is required. In recent years, our welders have been used not only in medical fields to make stents used in cardiovascular operations and dental laboratory techniques, but also in state-of-the-art manufacturing such as to make solar cell circuits.

Solutions for our clients

Since our welders can be used for micron-order welding, which is considered extremely difficult, they have been used in development and research laboratories of various companies and physics and chemistry research laboratories of universities. Moreover, our welders have been used by medical instruments makers that require minute metalworking as well as makers of gas appliances, electronic equipment and auto parts. Since the energization pulse is extremely short and welded parts can be small and finished beautifully, our welders allow users to perform temporary welding on accessories, etc.

USUTANI DENSHI Co., Ltd. <http://www.usutani.co.jp> English
7-28, Shoji-cho, Kadoma City, Osaka



Custom-made hydraulic presses and molding machines

G O J



Key features of the product

1. Design and manufacture of fully custom-made products
2. Capable of serving requests for commercial production to trial manufacture and applications for research and development
3. Careful tailoring to customer needs

We can provide fully custom-made presses and molding machines for various applications such as powder molding, forging, thermoforming, drawing, and thin plate working, as well as for applications from large to small size, and applications for commercial production to trial manufacture and research and development.

Solutions for our clients

To meet customer-specific needs, we offer integrated production processing from the proposal of facilities that fit the needs to design, manufacture, sales, and after-sales service. Based on extensive results and know-how that we have cultivated in dealing with various difficult problems, we can propose production lines that include not only various types of presses and molding machines but also peripheral equipment such as feeders, unloaders and tool changers. We strive to aggressively meet customer demands as a proposal-oriented company and give shape to concepts as a good partner to our customers.

TANAKA KAME CO., LTD. <http://www.came.co.jp/> 中文
1-3, Shodaitajika, Hirakata City, Osaka

Good planning capability

One-of-a-kind technology

Made in Japan

Trial production possible

Mass-production possible



Electric heating elements with temperture uniformity



Key features of the product

1. Advanced control of electric heating
2. Propose custom-made specifications most suitable for customers.
3. Can respond to requests for reduced prices.

We promote processes for burning, drying and developing modules such as solar cells, LCD panels, and touch panels, and provide technology for uniform or super-uniform heating via heating plates used by such modules, surface treatment film pressure management technology, and high-precision machining technology.

Solutions for our clients

We can help customers pursue cost-effectiveness, labor-savings and rationalization through uniform or super-uniform heating technology for heat supply devices to be used on manufacture lines for highly-functional films, carbon fiber molding, synthetic fiber processing, LCD substrates, semiconductor substrates, solar cells, and so forth. Our products have a unique self-temperature control feature that does not depend on a temperature controller, but is instead based on the heat of evaporation in a reduced-pressure environment.

SHINNACHI DENNETSU INDUSTRY LTD.

<http://www.snd-net.co.jp/> [Japanese only](#)
3-119-1, Ohtake, Yao City, Osaka



Continuous type centrifuge for deoiling cutting waste



Key features of the product

1. Recovery and reuse of expensive cutting oil
2. Continuous type of high throughput
3. Simple structure and easy maintenance checks

As the pioneer of centrifuges for deoiling, we manufacture products based on technologies and results that we have accumulated over many years. We can recover expensive cutting oil and make it reusable. Moreover, when treating cutting waste, our products can restrain the generation of hazardous smoke, and thus can be called "environmental pollution preventing machines."

Solutions for our clients

Most automakers in Japan use our products and we are proud of our extensive delivery record. We can adjust machine sizes and operations in accordance with throughput and treated products. Our products can deoil cutting waste by centrifugal force, and the oil recovery rate reaches about 90%. To prevent vibrations that frequently occur in rotary machines, we have introduced a three column suspension that enables smooth operation by sufficiently absorbing vibrations, which makes automation easy. Moreover, this centrifuges is unlike conventional products, it has no consumable and maintenance is quick and easy because our products are directly installed Special electric motors.

MATSUMOTO MACHINE MFG. CO., LTD.

<http://www.mark3.co.jp/> [Japanese only](#)
2-5-1, Kinryo-cho, Sakai-ku, Sakai City, Osaka

ISO 9001



Stable low amp arc wire spray system - EAS-WD-IL model



Key features of the product

1. Stable operation at low amperage
2. "Push & Pull" wire feeding mechanism
3. Inverter-controlled power source

This model, which was developed by a Japanese spray system maker, is most suitable for ultra-thin zinc spraying of condenser tubes for car air conditioners. Our products hold the top share of the market in Japan. Overseas, we have delivered numerous products to automotive heat exchanger parts manufacturers in South Korea, China, Thailand, the U.S. and other countries.

Solutions for our clients

The assumed customers are makers of heat exchanger parts for automobile air conditioners and makers of heat exchanger parts for the outdoor unit of air conditioners.

As this spray system provides a synchronized spray control that enables coating according to tube extruder speed, uniform fine coating is possible, which is expected to improve the quality of tubes. We have also established a system for simultaneous interlocked spraying of 4 to 8 extruded tubes and thus can largely contribute to the improvement of production efficiency. The system is most suitable for spraying condenser tubes of car air conditioners.

Coaken Techno Co., Ltd.

<http://www.coaken-techno.co.jp> [English](#)
5-2, Chikkohamaderanishimachi, Nishi-ku, Sakai City, Osaka



"Soil" pipe heaters



Key features of the product

1. Uniform heat dissipation based on a small heat source
2. Reduce fuel costs and CO₂ emissions.
3. No complicated construction work is necessary

These pipe heaters transfer latent heat resulting from evaporation and condensation of operating fluid encapsulated in an airtight container. These pipe heaters can transport a large amount of heat by small temperature difference utilizing the movement of latent heat resulting. In contrast to conventional hot-water supply type heaters, our pipe heaters are electric heating systems of simple structure.

Solutions for our clients

The CO₂ emissions from our pipe heaters is about one-fifth compared with other heating sources such as fuel oil and kerosene. Moreover, in cold regions, the pipe heaters enable users to cultivate crops throughout the year by maintaining the soil temperature at 20°C ± 5°C. By just setting an appropriate temperature, supplying electric power, users can eliminate disease-causing bacteria in soil, harmful insects and weeds. Moreover, because no hazardous pesticides are sprayed, the pipe heaters cause no residual toxicity for crops or groundwater and no adverse effects on nearby crops.

YAMARI INDUSTRIES, LIMITED

<http://www.yamari.co.jp> [English](#)
1-5-4, Mishimae, Takatsuki City, Osaka

ISO 9001

ISO 14001

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp



Rice flour milling technology



Key features of the product

1. Softening treatment technology that does not destroy starch cells of rice
2. Technology for adjusting milled particle size
3. Technology for developing new products for rice flour breads and noodles

The important trick of milling rice is not to destroy starch cells contained largely in rice. When milling rice, if a force is applied to the rice itself, the starch cells are destroyed. Therefore, we have developed technology that softens starch cells. Rice can be milled by softening treatment without destroying the starch cells.

Solutions for our clients

The assumed customers are as follows.

- Agricultural societies, companies specialized in flour milling and food processing companies in countries where rice is produced as a staple food
- Food processing companies that produce allergenic foods such as wheat

The problems that can be solved are as follows.

- Improve rice flour milling technology in Southeast Asia. Improve productivity.
- Propose conventional rice confectionaries and new rice-processed foods such as rice flour breads and noodles.

Nishimura Machine Works Co., Ltd. <http://www.econmw.co.jp/> Japanese only
2-6-9, Matsuyama-cho, Yao City, Osaka



Heat treatment furnaces



Key features of the product

1. All heat treatment furnaces are handled from design to manufacturing.
2. Cost reductions via energy-saving systems
3. Pollution control, CO₂ reductions

We design and manufacture all kinds of heat treatment furnaces, including carbonitriding treatment equipment, fully-automatic non-oxidation spheroidized annealing furnace, N₂ base gas nitriding furnace, mesh belt type non-oxidation quenching tempering equipment, continuous sintering furnaces, and zinc removing furnace for zinc plated automobile sheet equipment. We market numerous heat treatment furnaces and provide technical guidance not only in Japan but also in Southeast Asia, the Middle East, Europe, USA, etc.

Solutions for our clients

The assumed customers are makers of all kinds of steel products including bearings and automobile parts, makers of materials such as wire rods, and makers of non-steel and all kinds of parts, materials, and machines that require heat treatment. We can meet customer needs for manufacturing products. We market energy-saving, labor-saving, non-polluting, and low cost products, always from the customer's perspective. We consider it important to seek mutual benefits by understanding opinions and demands of customers and having customers understand our technological explanations. In order to meet customer demands, we pursue technologies and perform necessary experiments.

NIPPON HEATING CO., LTD. <http://www.nippon-heating.co.jp/> Japanese only
9-160, Ohtashinmachi, Yao City, Osaka

ISO 9001



"Swing Master SWM" swing-type level switch



Key features of the product

1. An electric circuit that functions as the drive unit guarantees a long service-life.
2. It can measure low-density powder with high sensitivity.
3. Sealing by a partition wall gives good pressure resistance.

Based on the technological capabilities that we have cultivated in powder measurement over 40 years, we have developed a drive section made of an electronic circuit without using mechanical consumables such as a motor or clutch. Thus, the level switches enable driving by electromagnetic force via the partition wall. The swing type level switches three times durable as conventional rotary type level switches, and have been already patented.

Solutions for our clients

The assumed customers are plants that handle powder and granular materials in the food, chemical, steel-making and electric power industries.

Under the environment where rotary type level switches are used, when powders are fluid, troubles such as chattering occur, and when the equipment frequently issues ON/OFF signals, machine parts such as motors need to be frequently replaced. With the introduction of this product, users can perform measurement even under a rigorous environment that makes detection difficult if rotary type level switches and other detection methods are used. Moreover, our products help users automate their production processes and promote labor-savings and cost reductions.

KANSAI AUTOMATION CO., Ltd. <http://www.kansai-automation.co.jp/> English 中文
2-14, Togano-cho, Kita-ku, Osaka City, Osaka

ISO 9001



CAD/CAM system and various types of automatic processing machines



Key features of the product

1. One CAD system can control all automated machines.
2. Carry out development, production, sales and maintenance in-house.
3. Acquired several patents and have them protected.

In addition to our proprietary CAD system that can control all automated machines, we provide high-precision and highly-functional automatic processing machines that can be used in manufacturing plants and offices of various industries, such as laser processing units, water jet systems, cutting plotters, automatic cutting tool bending machines, and blanking systems.

Solutions for our clients

Our CAD system enables users to centrally control various production machines, without preparing control CAD systems for each system. The industries to which our CAD system can be applied include the printing paper container and corrugated box manufacturing industries (for machines used in the processes of design, sample-making, making of cutting dies, and removing products after the die cutting process), clothing and other textile industries (for pattern-making machines), signage and display industries, store layout and signboards manufacturing industries (for machines producing exhibits), and industries manufacturing parts for automobile and aircraft industries (for machines that can make samples and small-lot products).

LASERCK CORPORATION <http://www.laserck.com> English
2-91, Wakabayashi, Yao City, Osaka

ISO 9001

Good planning capability

One-of-a-kind technology

Made in Japan

Trial production possible

Mass-production possible



"Million guide" needle roller type guide post



Key features of the product

1. Hexagonal liner roller guides used
2. High rigidity and accuracy, and rotation stopper
3. Low pre-loading gives the roller smoothness and a long service-life.

"We use needle rollers instead of ball rollers." – The Million guide adopts a hexagonal liner roller system and balances high rigidity in all directions. This is the "ultimate form" of liner guide. The main applications are mounting machines, guides for FA, various types of mold guides, etc.

Solutions for our clients

These liner guides are used for precision molds and systems. The assumed customers are electronic components, information equipment parts, consumer electronics parts, and automobile parts industries. By applying the "Million guide" to precision molds, users can achieve large cost reductions by increasing rigidity, improving product precision, decreasing defect rate, and prolonging die life. Our products also demonstrate their quality as a guide for systems that require rigidity. We can also meet customer requests for special processing.

ISEL CO., LTD. <http://isel.jp> [English](#)
1-2-16, Atobekitano-cho, Yao City, Osaka

ISO 9001
ISO 14001



Electric resistance stud bolt welding system



Key features of the product

1. Electric resistance welding makes welding quality stable.
2. Water-cooled electrode reduces costs.
3. Thin steel plates under 0.7mm in thickness can be welded.

Conventionally, stud bolts are welded to automotive body parts by arc welding. With the increased use of corrosion-proof steel sheets in recent years, however, steel sheets have become thinner so as to reduce weight, which inevitably causes more welding failures. Therefore, we have developed a simple welding process based on electric resistance welding, which can realize high-quality stud bolt welding.

Solutions for our clients

The main users of our welding system are automotive body plants and parts makers, but we also consider potential use in various fields including consumer electronics, farm equipment, and housing industries. Conventional technology requires costly management to ensure welding quality such as frequent maintenance of equipment and 100% product inspections. However, our system requires users to perform management on the same level as general spot welding and thus enables users to ensure welding quality and reduce costs. In particular, the use of our system helps users to increase the rate of operation on robot-based automatic welding lines and thus largely improve productivity.

TECHNO AOYAMA inc. <http://www.t-aoyama.co.jp> [English](#)
1931-1, Fukasaka, Naka-ku, Sakai City, Osaka



Small component transfer robot system



Key features of the product

1. Can propose appropriate systems based on past results.
2. High reliability based on the appropriate system
3. Realize high speed and downsizing.

We have realized high reliability in transport segments that are often neglected in the system configuration, by using robots. Moreover, to cope with the acceleration of product cycles, we have introduced robots that make it possible to change and start production lines in a short amount of time by changing the robot teaching program.

Solutions for our clients

We will mark the 60th anniversary of the founding of the company this year. We have developed as a specialized maker that provides planning, development, design and manufacturing of various types of automation and man-power-saving systems such as factory automation, robots, and mechatronics. On a daily basis, we put together system projects and manufacturing systems in business deals that cover not only robot makers including Yaskawa Electric, Fanuc, Nachi-Fujikoshi, Daihen, and Denso, but also industrial categories ranging from the heavy industries, light electrical, automobiles to medical facilities. Based on our accumulated know-how of systems, we can propose the system configuration that is the most suitable for customers.

DAIKO TOOL MFG CO., LTD. <http://www.daikokikai.co.jp/> [Japanese only](#)
20-1, Kitaohi-cho, Takatsuki City, Osaka



High frequency dielectric heating-applied products



Key features of the product

1. Heating by high-frequency, or microwave
2. Rapid, uniform heating
3. High thermal efficiency and good energy saving

Dielectric heating based on high frequency, or microwave is internal heating in which objects are self-heated. It ensures rapid, uniform heating compared with conventional hot air and steam heating. Our products have been used in a wide range of fields including heating and drying of plastics, wood, food, and ceramics, as well as cancer treatment.

Solutions for our clients

We can contribute to the world by making products specialized in dielectric heating. The TEMPATRON is a high frequency tempering machine designed for large-scale food plants, and can unfreeze a large amount of frozen food materials made of beef, pork and chicken without losing their quality. The THERMOTRON is a high-frequency-based hyperthermia treatment apparatus that uses the cancer cells' weakness against heat. The apparatus has attracted global attention as a new cancer treatment without side effects.

YAMAMOTO VINITA CO., LTD. <http://www.vinita.co.jp/> [English](#)
6-3-12, Ueshio, Tennoji-ku, Osaka City, Osaka

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp



Solvent-Free ultrasonic metal stencil cleaner



Key features of the product

1. Solvent Free
2. Simultaneous Cleaning and drying operations using proprietary cleaning head
3. Huge Running Cost Reduction

The Sawa Ecobrid SC-AH100 is an eco-friendly ultrasonic wave metal stencil cleaner that uses a VOC-free cleaner, "Sawa Water" is nonpolluting alkaline electrolyzed water created from city water. Non surfactant, non chemically synthesized substance contained. Earth friendly cleaning water effectively eliminates stains.

Solutions for our clients

The Sawa Ecobrid SC-AH100E is a metal stencil cleaner that can extensively support customer environmental measures. Using a proprietary cleaning process, the cleaning and drying can be completed in about 5 minutes. This product can help reduce the energy consumption at factories and CO₂ emissions by 43% (compared with other products of Sawa Corporation.) Moreover, using electronic alkaline water, it can help reduce organic solvent consumption that harms human health and environment.

SAWA CORPORATION

<http://www.sawa-corp.co.jp/> [English](#) / [中文](#)
2-17-1, Tsudayamate, Hirakata City, Osaka



Energy-saving, highly efficient electric blowers



Key features of the product

1. High efficiency
2. Superior heat resistance and corrosion resistance
3. Optimal products can be selected from 30,000 models.

We provide a variety of compact blowers equipped with in-house motors via quick accurate delivery. We have promoted high efficiency by combining newly designed high efficiency motors with high efficiency blowers. Our electric blowers can be installed in any kind of industrial equipment and systems for various applications.

Solutions for our clients

Making full use of "flow technology" and "rotary machine technology," we manufacture blowers that can be used for any kind of industrial equipment. The assumed customers are semiconductor makers, food makers, and other companies that use industrial equipment including industrial furnaces and driers. By using energy-saving highly efficient electric blowers, customers can promote energy-savings and reduce emissions of greenhouse gases. As the effects of using the electric blowers, customers can reduce power consumption by up to 17% (compared with other products from Showa Denki).

SHOWA DENKI CO., LTD.

<http://www.showadenki.co.jp> [English](#)
1-25, Shindenkitamachi, Daito City, Osaka



Automatic tool grinders



Key features of the product

1. Can regrind four kinds of tools such as drills.
2. Simple program-less control
3. Compact design to enable regrinding on tables

This fully automatic tool regrinding machine can regenerate a majority of rotating tools used in production sites. Anyone can immediately operate the grinders by operating the easy-to-understand screens and inputting a few numerical values. Moreover, full automatic grinding prevents quality variations between different operators.

Solutions for our clients

Because customers can regrind tools that used to be outsourced to external regrinding companies, in-house, they can save the time from sending tools until they are returned, and reduce the number of extra tools required during the outsourcing process. Moreover, our grinders are effective for companies that have no grinding department, particularly for small and medium-sized enterprises. Even with companies that have grinding departments, our small, space-saving and easy-to-use automated machines can offer efficient regrinding.

KANAE GIKEN CO., LTD.

<http://www.kanae-giken.jp/> [Japanese only](#)
2-19-10, Tsudayamate, Hirakata City, Osaka



Deodorizing systems



Key features of the product

1. Meet rigorous Japanese environmental standards
2. Design and construct systems in response to offensive odors to be eliminated
3. Provide high quality maintenance services

We can design and construct the optimal deodorizing systems for offensive odors to be eliminated. Based on extended use and development of control technologies, our systems demonstrate stable and superior performance. Also, in order to maintain the outstanding deodorizing power of the systems, we are offering high quality maintenance services to our customers.

Solutions for our clients

Our deodorizing systems deliver sure performance that sufficiently meets the requirements of Japanese companies that need to pass the rigorous environmental quality standards. We have technologies for accurately analyzing odors, for designing and constructing the best systems for eliminating the offensive odors, and for properly controlling such systems. Furthermore, we are offering extensive maintenance services so that our systems can keep demonstrating high deodorizing performance. Our deodorizing systems have contributed largely to the solution to the offensive odor problems that are one of the top concerns of many companies in Japan.

Uchida Electric Industry Co., Ltd.

<http://uchidadenki.com> [Japanese only](#)
40-26, Minamiseiwaen-cho, Suita City, Osaka

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible



CLP-35DDS high accuracy gear measuring machines



Key features of the product

1. Enable highly accurate gear measurements at production sites.
2. High efficiency, high functionality and long service-life
3. International MRA-accredited company

The machines of the CLP-35DDS series are successor models of the world's first NC gear measuring machines, the GC-HP series, and feature high accuracy, strong resistance against temperature change, and quiet operation. The CLP-35DDS models can be used in various fields where high quality gears are required such as those for automotive transmissions and drives for office automation equipment, polishing gears, and injection molded plastic gears.

Solutions for our clients

The accuracy of gears largely affects vibrations, noise, printing irregularities and damage to machines and systems. If customers can measure and guarantee the high accuracy required of gears by using the highly reliable gear precision evaluation system of the CLP-35DDS series, they can have a competitive edge in terms of gear accuracy on global markets. The reliability of machine accuracy is exhibited by the world's top-level measurement capabilities of our gear calibration standard machines, which are used in our gear calibration laboratory (that is internationally accredited under mutual recognition arrangement).

Osaka Seimitsu Kikai Co., Ltd. <http://www.osk-corp.co.jp> [English](#) / [中文](#)

6-5-16, Mikuriya, Higashiosaka City, Osaka

ISO 9001



100% inspection system (Screws, bolts, nuts, automobile parts, medical treatment, etc.)



Key features of the product

1. High accuracy (Japanese Standards)
2. High quality
3. Usability

In Japan where the highest quality is demanded, our inspection systems assuredly check and clear parts including micron-size solder balls for powder and microscopic screws and M16 screws for electronic components.

Solutions for our clients

The assumed customers are industries related to automobile parts, aerospace, ships, railways, medical treatment and electronic materials. Since the start of mechanization to the present, numerous products have emerged, but all products are made of smaller parts, and any defects in one part could lead to a serious accident. Armed with experience, proprietary technologies and unique know-how that we have cultivated, we are continuing to evolve every day and are convinced that we can contribute to the quality control of customers.

YUTAKA CO., LTD. <http://www.tech-yutaka.co.jp> [English](#)

24-12, Shinmachi, Higashiosaka City, Osaka



Image (camera and laser) measuring system



Key features of the product

1. Dimensional measurement is possible without touching workpieces.
2. Scratches and waste can be examined.
3. Separately, we can develop and manufacture LED lighting systems.

The system enables users to perform highly accurate measurements of workpieces of a variety of shapes without touching them. No dedicated operators are required as anyone can easily operate the system. The system automatically outputs analysis data. Moreover, we can provide LED lighting systems as an energy-saving measure.

Solutions for our clients

Our image-based size measuring systems have been highly rated by customers as they can quickly and accurately measure LCD panels of TVs and mobile phones, polarizing plates, diffuser panels, metalworking parts, office automation equipment parts, camera parts, resin molding parts, and all kinds of seal-shaped workpieces, and enable users to quite easily perform inspection before product shipment. We have delivered the systems to customers in the USA, EU and Asia in large numbers and at reasonable prices compared with other companies, and customers who have introduced our systems have highly evaluated them. Moreover, we have provided LED lighting systems as straight type use and for plant lights and street lights.

CHUO ELECTRIC WORKS LTD. <http://www.e-cew.co.jp/> [English](#)

2-7-12, Uchindai-cho, Miyakojima-ku, Osaka City, Osaka

ISO 9001



Manual probe stations



Key features of the product

1. Can handle from chips to 12-inch size wafers.
2. Can be used for wide-ranging needs including assessment and analysis.
3. Most suitable for IV/CV, RF measurement

The probe stations are designed for electrical measurement of semiconductors and can test devices as wafers and chips. We can also provide optional probe stations that can be used for ultra-low current measurement and measurement in high temperature environments. The probe stations of customized shape are also available for use in illumination.

Solutions for our clients

Using our manual probe stations, semiconductor developers and semiconductor process engineers can easily measure electric properties on the wafer and chip level. Moreover, since operability is taken into consideration, the stations are designed so that users can easily load and unload wafers from the front side. Our products are most suitable for IV/CV and RF measurements, and can satisfy wide-ranging needs in assessment and analysis. Thus, users can eliminate the troubles and costs associated with packaging.

APOLLOWAVE Corporation <http://www.apollowave.co.jp> [English](#)

Daisho Bldg., 4F, 6-7-8, Nishinakajima, Yodogawa-ku, Osaka City, Osaka

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp



Broad-band heat conduction type vacuum gauges using new sensor materials



Key features of the product

1. Can measure from 10^{-3} Pa to atmospheric pressure.
2. Strong, micro-sized sensor
3. Can be installed into vacuum devices.

We have developed microvacuum (pressure) sensors that have advanced sensitivity and wider vacuum measurement ranges through an expanded heat exchanger surface area enabled by new sensitive materials and thinner films. The sensors also maintain the heat exchange surface area with novel substrate materials. The vacuum gauges can measure from 10^{-3} Pa to atmospheric pressure.

Solutions for our clients

Through their micro-sizing technology, accurate measurements of the vacuum environment and changes near products and in other critical small spaces can be made in real-time. Because of the principles behind their measurement technologies, the sensors are not affected by vacuums at (or only very little), and they have excellent resistance properties to vibration, shock and other environmental conditions, making them ideal for the manufacturing workplace. These sensors enable vacuum measurements in vacuum processing equipment where conventional technology falls short, advancing the technology of vacuum maintenance control.

OKANO WORKS, LTD. <http://www.okanoworks.com> English
1-4-10, Hiranomachi, Chuo-ku, Osaka City, Osaka

ISO 9001



AUTO-SLIME (Drilled pier slime measurement and removal system)



Key features of the product

1. Realize the visualization of treatment.
2. Reduce variations in the collection of accumulated slime.
3. Cope with wide-ranging drill hole sizes.

We have developed technology for measuring slime based on the latest mechatronics and sensing technologies, and realized the world's first measurement of slime for cast-in-place piles. With this achievement, we have succeeded in visualizing the distribution of slime density in holes, and, based on this technology, we have developed a slime measurement and removal system, AUTO-SLIME. Thus, we have remarkably shortened the construction time and improved construction quality at construction sites.

Solutions for our clients

Our concept is "the promotion of ICT at construction sites." Specifically, in order to disengage on-site operators from distress work and safety management, we have brought state-of-the-art technologies to construction sites after collecting them from across the world, and have been striving for their realization. The ICT technology that we have cultivated via Japanese construction technologies will help customers at construction sites around the world. We consider Japanese construction technologies the world's best, and our company, which has made products in that rigorous environment, can provide technologies that will be accepted around the world.

TAIYU CORPORATION <http://www.taiyu-corp.com> 中文
4-11-7, Shimeno, Neyagawa City, Osaka



"Sanitary" products (Tramp metal removal system)



Key features of the product

1. Rapid response to customer specifications
2. Diverse lineups
3. High magnetic force and short delivery date

Stainless steel pipes are installed with strong neodymium magnets. The pipes can be incorporated into manufacturing lines for the food, medical and materials industries. Thus, the systems can efficiently and securely remove iron dust, etc. that is mixed into products.

Solutions for our clients

In this era where food safety is demanded worldwide, our "Sanitary" products remove metal dust from manufacturing lines of the food, medical and other industries, and enhance the safety and reliability of products. Making full use of magnetic field analysis technology, we can quickly satisfy customer needs including trial manufacture, and help customers enhance the quality of products.

SHIMONISHI SEISAKUSHO CO., LTD. <http://www.shimonishi.net/> Japanese only
6-8-25, Wakaehigashimachi, Higashiosaka City, Osaka

ISO 9001

ISO 14001



Facing centers



Key features of the product

1. Largely reduce machining time to improve productivity.
2. Eliminate the attachment and takeoff of faceplates.
3. Shorten operation time with an automatic pallet changer.

Because the faceplate is embedded in the product, compared with horizontal boring machines that require attachment of a faceplate, the product can further enable highly rigid and accurate deep cuts. The rotary drive system of the faceplate is different from the main axis system, and has a high torque. Because the bearing is supported with an independent large-diameter bearing, it can maintain extremely high rigidity.

Solutions for our clients

Our facing centers are used for processing valves, parts of generators, construction machinery, shipbuilding heavy machines, aircrafts, and oil rigs. Moreover, our products can greatly reduce the time and trouble of compounded processing and increase the efficiency of fully automated production. They feature (1) a large reduction in the number of tools to be used compared with machining centers, (2) H7 hole drilling using the faceplate, and (3) installation of two faceplate tool holders.

NOMURA MACHINE TOOL WORKS, LTD. <http://www.nomurass.co.jp/> English
3-25-1, Isonokami-cho, Kishiwada City, Osaka

ISO 9001

Good planning capability

One-of-a-kind technology

Made in Japan

Trial production possible

Mass-production possible



In-yard heavy cargo transportation vehicles



Key features of the product

1. Movable load is 1 to 50 tons.
2. Trailer-type vehicles, electric vehicles
3. Non-rail guided vehicles, rail guided vehicles

Our vehicles are most suitable for transporting ultra-heavy cargoes such as press molds, plastic injection molding molds, and steel plates and coils. The movable load is 1 to 50 tons (rail guided vehicles successfully tested up to 200 tons). The tire wheel vehicles (non-rail guided vehicles) can freely move anywhere. The rail guided vehicles are advantageous for automatic travel. Automated guided vehicles (AGV) are also available.

Solutions for our clients

With regard to in-yard transportation, there are limited methods for transporting ultra-heavy cargoes of more than 10 tons. As a company that satisfies user needs, we have a track record of planning and proposing more than 1,000 transportation vehicles a year. We also have a track record of developing more than 200 kinds of purpose-specific vehicles a year. We provide a variety of trailers for in-yard transportation such as 2WS types, 4WS types, and turntable types at low costs. Electric vehicles are available for non-rail guided remote controller-types (wired and wireless), rail guided remote controller types (wired and wireless), and rider types. We are unmatched around the world as a company that can provide such a wide range of in-yard vehicles.

SANO SHARYO SEISAKUSHO CO., LTD. <http://teamsano.co.jp> English
1-9-10, Wakamatsu-cho-Higashi, Tondabayashi City, Osaka



"Aquarius" fixed-quantity spot soldering robot



Key features of the product

1. High quality solder
2. Prevents the scattering of solder balls.
3. Easy operation

This spot soldering robot can change soldering conditions for every point of a product by melting solder that is cut to a fixed size (quantity) inside a tube-shaped ceramic nozzle that is heated by a ceramic heater.

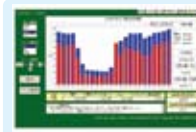
Solutions for our clients

The soldering nozzle is made of aluminum nitride and silicon carbide of good thermal conductivity, and the nozzle shape is optimally designed based on extensive research. With the supply of solder in fixed quantity and the appropriate soldering settings for each point, the robot can reduce defects and realize high quality soldering. Moreover, the robot enables various kinds of soldering such as through-hole soldering and soldering near the resin wall of a circuit board. The robot loses little solder and saves on energy and space, while offering easy operation and good maintenance management. With the use of Aquarius robots, customers can design products that will be way ahead of other companies.

PARAT Co., Ltd. <http://www.paratdo.com> Japanese only
3-4-6, Yoshita, Higashiosaka City, Osaka



ECOIS (Visualization of electricity, gas and water consumption information and operations management system)



Key features of the product

1. Ensures appropriate electricity, gas and water consumption.
2. Creates comfortable space.
3. Effective utilization of energy and water resources

The system enables users to control consumption of electricity, gas and water, based on visualized consumption information distributed over the internet via a proprietary data server that obtains data on consumption of electricity, gas and water 24 hours a day. Thus, the system aims to reduce utilities costs by more than 15% on average.

Solutions for our clients

By obtaining and controlling the consumption of electricity, gas and water 24 hours a day in real-time, the system enable users to reduce utilities costs by more than 15% on average. Through daily monitoring of consumption, users can detect water leaks early on, prevent faucets from being left open, and appropriately inhibit the use of lighting and air conditioning that is more than required. Thus, users can reduce wasteful consumption to almost zero.

PICO ADA CO., LTD. <http://www.picoada.co.jp> Japanese only
Crystal Bldg., 5F, 1-15-7, Tenjinbashi, Kita-ku, Osaka City, Osaka



Hybrid temperature transmitter



Key features of the product

1. Combination of mechanical thermometer and electric thermometer
2. Site temperature indication and remote temperature indication are possible with one unit.
3. Electrical signals can be output after being converted by a converter.

A small electric temperature sensor is built in to the temperature sensor of the mechanical thermometer using advanced technology, so the site indication and the remote indication can be read on a single thermometer. The leads of the temperature sensor are housed in the corrugated tube of the thermometer, and the terminal is stored in the case of the thermometer.

Solutions for our clients

This hybrid temperature transmitter enables temperature measurements in the same place using a site indicator and remote indication via an electric temperature sensor. As one specific application, the transmitter enables users to read substation transformers at the site and send the data to a remote control room as electrical signals, and thus unmanned operation of the substation becomes possible. In similar cases, the transmitters can be extensively used for temperature measurement, such as that of the bearings of material feed conveyers at ironworks and that of pipes in chemical plants.

HYODA INSTRUMENTS CORPORATION <http://www.hyoda.co.jp> English
1-6, Izumoi-Honmachi, Higashiosaka City, Osaka

ISO 9001

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp



Mechanical patterning device for CIGS thin-film photovoltaic cells



Key features of the product

1. High quality patterning
2. Long service-life tool
3. Head dedicated to CIGS

Miniature patterning is created on chemical compound-based polycrystalline thin films used for photovoltaic cell panels, to increase generating efficiency when they are processed. We have developed needle-like tools that can be used for microfabrication of 30 μ m in minimum width. The tools help to lessen film-peeling and increase yield in mechanical patterning.

Solutions for our clients

The chemical compound-based thin-film photovoltaic cells have a structure comprised of a single electrode-attached glass substrate laminated with a sunlight absorbing layer made of copper, gallium, selenium, etc. and a conductive film on top. Several cells are simultaneously used for generating power. Our LCD panel cutting technology has a 70% share of the FPD market worldwide. By applying this LCD panel cutting technology to the patterning device used in the photovoltaic cell production process, we have developed a device that can create miniature "inscriptions" on the CIGS compound-based thin-film of photovoltaic cells.

Mitsuboshi Diamond Industrial Co., Ltd. <http://www.mitsuboshidiamond.com/> [English](#) / [中文](#) / [한국어](#)
2-12-12, Minamikaneden, Suita City, Osaka



Trial manufacture of printed circuit boards for R&D (research and development)



Key features of the product

1. Can deliver boards after 4 trial manufacture processes in just two days.
2. One-stop service for 4 processes
3. Can handle four kinds of printed circuit boards.

We provide the technology for four processes (board design + printed circuit board + parts procurement + board mounting) of trial manufacture of boards for R&D (research and development) at the fastest speed possible. We can handle four kinds of printed circuit boards - (1) FR-4, (2) FPC, (3) RIGID-FPC, and (4) AI-BASE.

Solutions for our clients

The assumed customers are research laboratories of manufacturers, universities, research institutes, and new businesses from other industries. To survive the global competition among companies, the speed of product development holds the key to business growth. We can propose comfortable one-stop service to customers so that they can concentrate on creating new technologies, functions and design values and conducting their verifications. Moreover, through our affiliated company in Hong Kong, we can support commercial production at low cost in China after trial manufacture.

DENSHI-GIHAN CO., LTD. <http://www.denshi-gihan.co.jp> [English](#)
62-8, Toyotsu-cho, Suita City, Osaka



Internal Gear Pumps



Key features of the product

1. Can be used with fluids from low viscosity to high viscosity.
2. Can be used in small to large capacity applications.
3. Can transfer fluids as hot as 400°C.

We use proprietary Taocloid gears for our internal gear pumps. We have succeeded in developing pumps that can discharge fluids at as much as 500m³/h, the world's highest. Our internal gear pumps can be used for discharging fluids from 50cc/min to 500m³/h. The pumps can transfer fluids of viscosities as high as 2.5 million mPa.S.

Solutions for our clients

Our products have been used in coal liquefaction plants in Japan and overseas, where pumps are required to have abrasion resistance and handle fluids as high as 380° C, and they have been operated without troubles and highly evaluated. There are examples where companies that had been troubled with pumps made by other makers, and succeeded in solving their troubles after changing to our pumps. We can design and manufacture pumps ranging from standard pumps to pumps with special specifications. We have established a production plant in Shanghai, and have developed overseas agents in India, South Korea, Taiwan, Thailand, Malaysia and Singapore.

DAIDO MACHINERY CORPORATION <http://www.daidopmp.co.jp/> [English](#)
1-26-26, Fukazawa-cho, Takatsuki City, Osaka

ISO 9001



Dual modulation spectrum system



Key features of the product

1. Two-way communication system for R/C hobbies
2. Strong radio and noise interference resistance and good communication performance
3. Stable transmission and reception for machines 1 km away.

The development of hobby radio communications has been centered on products on the 2.4 GHz bandwidth, while radio and noise interference resistance has improved exponentially. We have adopted a diversity antenna system of strong directionality so that communications on the 2.4 GHz band are ensured. The transmitter of our system can receive information from a flying machine 1km away and display it on the unit.

Solutions for our clients

Our main customers are in the R/C hobby markets. The development of radio communication technology is based, however, on other technologies such communication technology, resin molding design and metal cutting design, motor control technology and attitude control technology, which can be used for various other purposes. Therefore, we can respond to requests from other business category for the development for special products. We have our own plants in Japan and Malaysia, and provide total services from product manufacture to packaging. We have developed an extensive overseas network with sales agents in the U.S., Europe and Asia.

JAPAN REMOTE CONTROL CO., LTD. <http://www.jrpropo.co.jp/> [Japanese only](#)
2-2-12, Eiwa, Higashiosaka City, Osaka

Good planning capability One-of-a-kind technology Made in Japan Trial production possible Mass-production possible

CONTACT: Osaka Core Manufacturing Technology Network (Detailed information: P13) E-mail : monob2b@mydome.jp