Industrial rubber products, extruded products, resin and metalworking technology

T M

Key features of the product

1. Processing of urethane, teflon, nylon and various other types of rubber / resin materials
2. Precision parts for industrial machinery (Packings, rollers, shutters, etc.)
3. Medical care products and robot parts (Training equipment, covers, brackets, etc.)

We have the technology for processing industrial rubber and resin material products, including various types of rubber plates and rollers, molded products, and extruded products. Moreover, we apply our accumulated technologies to the processing of precision parts used for factory automation equipment such as electronic packaging robots, as well as the manufacture and marketing of training equipment for rehabilitation.

Solutions for our clients

Since the founding of the company, we have continued manufacturing precision parts used for industrial machines and plant automation equipment, as well as heavy goods transport equipment. The assumed customers come from a wide range of fields including machine tools, automobile and electrical equipment industries, education research institutes of universities, and the heavy goods transportation industry. We have a variety of machine tools and precision measurement equipment, and can accept orders from a single item to commercial production, and quickly deliver products at low costs. We can also provide integrated production of products made of industrial rubber, resin, and metallic materials.

IZUMO Co., Ltd. http://www.izumo-web.co.jp/ Japanese only ISO 14001
3-9-18, Shinomiya, Kadoma City, Osaka

Digital free design (DFD)

G J T M

Key features of the product

1. Can make molds just as imagined (improved design).
2. Can faithfully reproduce molds from database information.
3. Can reduce costs and improve mass-productivity.

We create 3D designs of detailed, irregular and textured patterns, and perform cutting on small-diameter end mills. Contrary to conventional chemical-machining using chemicals that have many constraints, we can faithfully reproduce, enlarge or reduce molds based on data. Our system enables gradation processing that is difficult to perform by conventional etching and thus can improve product design.

Solutions for our clients

If our DFD processing is applied to molds, texturing expenses become unnecessary and costs are reduced. Because we cut patterns simultaneously when cutting shapes, delivery dates can be shortened. Moreover, the DFD system has infinite possibilities and diversified applications because we not only can make molds but also process and reproduce handicraft products faithfully via metalworking.

NISSIN SEIKOU CO., LTD. http://www.nissinseikou.com Japanese only
1-11-2, Kashitanishi, Higashiosaka City, Osaka

"ecoMAX" (Non-chrome galvanization)

G O J T M

Key features of the product

1. No use of chrome
2. High rust prevention power
3. No discoloration over time

We use no hexavalent chromium and trivalent chromium for our galvanization, which, nevertheless, retains anticorrosion property on par with or better than conventional plating. Besides, our galvanization does not cause discoloration that is usually seen with trivalent chromate. Since our galvanization technology has already been used by a Japanese electronic equipment maker, it can be used with a sense of security.

Solutions for our clients

The assumed customers are companies that are promoting the manufacture of environment-conscious products, including automakers and light electrical, electronic, construction machine, housing and medical equipment manufacturers. If exposed to the conditions of high temperature and high humidity for a long time, trivalent chromating (galvanization) shows weakness such as discoloration, and trivalent chromium changes into hexavalent chromium. "eco Max"-treated galvanization retains its original color and does not generate chromium.

HAMAOKA PLATING Inc. http://www.hamaokamekki.co.jp Japanese only ISO 9001 ISO 14001
11-31, Takaramachi, Higashiosaka City, Osaka

LSR composite molding technology that allows insert molding to different materials

G O T M

Key features of the product

1. Integral molding of seals part to thin parts of different material
2. Development of a proprietary LIM molding machine
3. Development of super high-accuracy injection mechanism

To perform insert molding of different materials such as thin resin and metal, we have developed a proprietary LIM molding machine based on technological capabilities we cultivated over many years. Even when molding rubber together with decorative thin resins such as in the case of mobile phones, the machine enables rubber molding without damaging the decorated side, thus helping to make water-proof mobile phones thinner.

Solutions for our clients

We provide customized design and manufacturing for customer applications and functions such as light electrical products, automotive parts, mobile phones and office equipment. In particular, regarding packing for protection against water, dust and sand, we can provide products that satisfy customer demands using technologies we cultivated over the years. Moreover, with the development of a proprietary LIM molding technique, we can provide high-accuracy rubber products unseen in other companies and perform composite molding of rubber and different materials in order to help manufacturers reduces the number of parts and downsize products.

KINJO RUBBER CO., LTD. http://www.kinjogomu.jp Japanese only ISO 9001 ISO 14001
1-4-25, Atobe-Kitanomachi, Yao City, Osaka

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

Running water-based micro-hydroelectric system

O J T M

Key features of the product

1. Generating electricity without stopping the flow of water
2. Simple installation and relocation
3. Highly efficient and highly durable power generation system

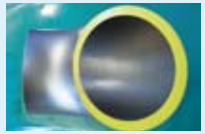
This running water-based micro-hydroelectric system connects round and elliptic water wheels to screw speed-up gears and a generator, and can generate electricity without stopping the flow of water in a river or an irrigation canal. It can be applied to existing channels of low head and other pertinent conditions (size, flow volume, and flow rate) as well as to various power generation applications.

Solutions for our clients

Because our running water-based micro-hydroelectric system is easy to install and relocate, and does not require large-scale civil engineering work, it can reduce initial introduction costs. This power generation system can promote "local production (of electricity) for local consumption" and can help reduce maintenance management costs of various facilities. Moreover, the system can be used in regional development initiatives as a social contribution for the use of clean energy, for event illumination, lighting up monuments that function as tourism resources, as an emergency power source in disasters, and to supply electric power to a battery charging stand for electric vehicles.

Yamazaki Co., Ltd. http://www.yamazakico.jp/ Japanese only
148-1, Mikitoji, Minami-ku, Sakai City, Osaka

Strain-free perfect circle elbow cut from a single block



Key features of the product

1. A perfect circle ensured wherever cut
2. Identical strength in all parts
3. Elbow that can deal with erosion

Because the elbow is cut from a single forged block, it has no welded parts, deformation and irregularity in thickness, while guaranteeing remarkably enhanced safety, reliability and fluidity compared with conventional products. Used as a specimen in a development project for strengthening infrastructure against aging, its quality has been highly rated.

Solutions for our clients

Since mechanical processing allows us to make highly accurate products of the same size, our products have been used as specimens by the research institutes of national universities. Because elbows were made to design under this method for the first time, it is expected that research and development of elbows, which has little progressed so far, will advance exponentially in the future. Since the product can be cut into a "perfect circle" wherever is cut, it increases flow efficiency and thus largely contributes to energy-saving.

NODA DIE MARKER Co., Ltd. http//www.nodakanagata.co.jp/ Japanese only ISO 9001
3-38, Takasago, Takaishi City, Osaka

"DK-coat Infinity" inorganic ceramic coating

G O J T M

Key features of the product

1. High thermostability
2. High durability
3. High safety

DK-coat Infinity is a nontoxic, nonhazardous next-generation ceramic coating that is made only of inorganic material and contains no organic materials. The coating has antibacterial and antifouling effects, complies with standards for food contact substances, and has good corrosion resistance, chemical resistance, thermal conductivity, and electrical insulation properties.

Solutions for our clients

DK-coat Infinity is not viscous and offers good durability but contains no PFOA, which is suspected of being a carcinogen. Since DK-coat Infinity can be easily washed and has good thermal conductivity, it is attracting attention as a next-generation coating for safe cooking utensils used with food. In addition, the coating is expected to be used in various fields as, for example, it enables the use of specialized products at the highest allowable temperature limit of more than 450℃.

DAITOH CHEMICAL CO., LTD. http://www.daitohchemical.jp/ Japanese only
501-3, Kitaamabe, Mihara-ku, Sakai City, Osaka

Vacuum heat treatment technology

G O J T M

Key features of the product

1. High vacuum heat treatment (0.1 to 10^{-5}Pa)
2. Treatment of large materials (H760mm x W760mm x D1,200mm)
3. Quick delivery by working around-the-clock, seven days a week

Metal heat treatment refers to "hardening," "softening," and "attaching". "Hardening" means quenching, ion nitriding, etc.; "softening" means annealing, solution, etc.; and "attaching" means soldering, diffusion bonding also known as “thermo compression bonding,” etc. We heat and cool metals in a vacuum to give them hardness, toughness, and corrosion resistance.

Solutions for our clients

Compared with conventional treatment systems, our vacuum heat treatment can prevent unnecessary chemical changes and oxidation. Therefore, it is the best heat treatment method for metal products including stainless steel and titanium, which can add high values. In particular, the ion nitriding that hardens metal surfaces with nitrogen ions in the low temperature range, causes little distortion and completes the process in a short time by maintaining the surface conditions of metals. Moreover, ion nitriding needs no post-processing and the composition of nitrided case and gas ratio, which cannot be achieved by other nitriding processes, can be freely controlled. In addition, ion nitriding can also enhance abrasion resistance and corrosion resistance.

HATTA KOGYO CO., LTD. http://www.hatta.co.jp/ Japanese only ISO 9001 ISO 14001
2-18-40, Hattanishimachi, Naka-ku, Sakai 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

3D water pipe-equipped molds

J T

Key features of the product

1. Weld line-free molding is possible.
2. Shorter cycle times
3. Accurate temperature regulation of molds is possible.

Based on metal additive manufacturing, we can design 3D water pipes inside molds. In conventional methods, drill holes are created by machining, only linear water pipes can be designed, and there is a long distance between the water pipe and the part of the mold subject to temperature regulation, which makes temperature regulation insufficient. With the success of designing 3D water pipes, water pipes can be efficiently arranged in the necessary locations and accurate temperature regulation of molds becomes possible.

Solutions for our clients

Regarding resin-based injection-molding molds, molding can be done without weld lines by arranging the water pipes parting locations where weld lines are generated. Moreover, locating water pipes parting places where cooling is delayed can shorten injection-molding time. Regarding die-casting molds, parts subject to severe dissolved loss caused by core pins can be cooled by water. Our 3D water pipe design technology can extend the service-life of parts and enable users to stably operate manufacturing lines.

JMP Co., Ltd. http://www.jmp.ne.jp Japanese only ISO 9001
5-20-10, Tsukahara, Takatsuki City, Osaka

Machine-processed precision parts for various types of industrial machinery

J M

Key features of the product

1. Machine-processed precision parts made of steel materials
2. Top-class quality, delivery and costs
3. Conduct concurrent activities with customers.

We specialize in important safety and other parts that require precision among component parts of various types of industrial machinery. We perform processing on materials and heat and surface treatment, and deliver products to customer assembly lines as finished products. Because we have acquired ISO9001 and ISO14001, customers can use our products without worry.

Solutions for our clients

If companies aim to enhance the functions and precision of products, make machines that cause less troubles, strengthen quality assurance, and improve the rate of line progress, we can be consulted and make various proposals. We ensure the traceability of the products and meet customer demand by using a proprietary made-to-order production and inventory management system that covers from material procurement to processing and delivery. Because we have introduced the latest machines for most manufacturing processes, we can deliver products that customers can procure without worry.

UEGAKI KINZOKU SEISAKUSYO CO., LTD. http://www.uks33.co.jp/ English ISO 9001 ISO 14001
4-8-36, Kawata, Higashiosaka City, Osaka

Miniature precision cutting technology

G O T M

Key features of the product

1. Enables hole drilling as small as 5 φ μ in diameter.
2. Enables groove beveling of 0.1mm in width and 0.3mm in depth.
3. Enables mirror production with a surface roughness of Ra0.02 to 0.04 by cutting.

Examples of applications are as follows. 1. Equipment that detects of air, gas or liquid leaks based on ultra-small hole drilling technology 2. Miniature molds, biochips, fluid channel, etc. 3. Precision parts that require heat, light reflex, and sliding surfaces. Products that require high surface roughness, such as vacuum chambers and transfer arms used in the semiconductor industry.

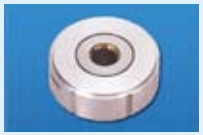
Solutions for our clients

The assumed customers are research and development departments and commercial production departments of LCD, semiconductor, medical equipment, automobile, and various types of automated machine makers. We can quickly deliver products at low costs owing to our integrated management approach to proposals that include design, materials, processing, and surface treatment.
1, 2. We realize forms and high precision that are difficult to achieve via pressing, laser cutting, and etching.
3. Since our mirror production technology (for aluminum, brass and copper) has realized high surface roughness without polishing, users can reduce polishing expenses and solve problems such as the encroachment of abrasive grains into materials in buffing and lapping processes.

Nakata Co., Ltd. http://www.nakata-ss.co.jp/ English / 한국어 ISO 9001 ISO 14001
5-1-15, Kamio-cho, Yao City, Osaka

Helical gear cold molding technology

G O J T M



Key features of the product

1. Pursue near net shape
2. High quality and high precision
3. Longer life and lower costs for molds

We can forge precision tooth gears that used to be produced only by machining. Owing to our high productivity, we can mass-produce products at low costs. Our technology for correcting the dimensions of gears is based on distortion from forging and heat treatment, and has made the most difficult μ -grade control of helical tooth profile errors and tooth trace direction errors possible.

Solutions for our clients

The assumed customers are diverse industries including the automotive, forging, formed and fabricated materials, and parts industries. In the analysis software business, the assumed customers are companies that work plastics such as the heavy, construction machinery, electronics, steel, nonferrous metals, tools, heat treatment and lubrication industries. We make full use of state-of-the-art plastic working technology based on mold-making technologies, and meet customer needs, as a company that provides total solutions in plastic working fields, which include manufacturing of molds for precision-forging, CAE-optimized design, and development of products that ensure quick delivery using the press originally used for trial manufacture.

YAMANAKA ENG CO., LTD. http://www.yamanaka-eng.co.jp/ English ISO 9001
4-4-24, Kano, Higashiosaka City, Osaka

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

Cold-forged molds

G O T

Key features of the product

1. Long-life molds suitable for commercial production
2. Can handle difficult-to-process materials and difficult shapes.
3. One-stop service from design to shipping

Our molds are used for producing bolts and other important safety parts used for automobiles and construction. Based on superhard processing, coating treatment and proprietary mounting methods, we have succeeded in producing long service-life molds that are suitable for difficult-to-process materials and have good abrasion resistance and impact resistance.

Solutions for our clients

Through one-stop service that covers from design to shipping products, we take an approach of solving the problems together with customers. Moreover, via production and management innovation based on 3S activities -- seiri (arrange), seiton (organize) and seiso (clean) -- that we have been working on since May 1999, we emphasize high quality control of molds and carefully crafted services to customers. As services that have developed from the 3S activities, the "Digital Dolphins" documentation system that controls user information as well as fee-based factory tours in which visitors can experience 3S activities, are welcomed by customers.

Hiraoka Hyper Tools, INC. http://www.sg-loy.co.jp/ Japanese only
2-7-22, Tatsuminaka, Ikuno-ku, Osaka City, Osaka
ISO 9001

VTOL (vertical takeoff and landing) unmanned aircraft (under development)

G O J T

Key features of the product

1. World's first quad tilt wing VTOL navigation
2. Aiming at long-distance (1,000 km) range
3. Make use of the advantages of fixed wing and rotary wing.

To rate the usefulness of our unmanned aircrafts, we are preparing them for Antarctic observation being conducted by the National Institute of Polar Research. Moreover, using the jointly-developed "Maido No.1" (thunder observation) satellite, we will establish a system in cohort with a university to supply thunder forecasting information via space, air and ground observation.

Solutions for our clients

Because the unmanned aircraft enables monitoring of large-scale disasters such as earthquakes and forest fires, disaster relief can be provided earlier. Moreover, the unmanned aircraft enables local observation of difficult-to-enter places such as the craters of volcanoes, Antarctica, and mountainous areas, thus preventing loss of life from close-up observation. The monitoring of transmission line control is normally conducted by manned aircrafts, but cost reductions are possible if costly monitoring observations are conducted by unmanned aircraft. Moreover, the unmanned aircraft facilitates exploration of oil and ocean resources.

AOKI Co., Ltd. http://www.aoki-maido.co.jp English
5-7-3, Takaidanaka, Higashiosaka City, Osaka
ISO 9001

Manufacturing of aluminum die-cast products for automobiles and electronic equipment

M

Key features of the product

1. Integrated production from mold-making to forging and precision instrument processing
2. Global production system in Thailand, China and Japan
3. Mass-production technology

The examples of applications are aluminum die-cast products for electronic equipment (hard disk drives, bases, drive motor parts, etc.) and aluminum die-cast products for automobiles (steerings, engines, car air conditioners, transmission parts, etc.)

Solutions for our clients

We have established an integrated production system comprised of design and manufacture of aluminum die-cast molds, casting by die-cast machine, and precision instruments processing by machining center and NC lathe. Moreover, with the establishment of commercial production plants in Thailand, China, and Japan, we can supply high quality, precision die-cast products such as automobile parts and electronic equipment parts to customers around the word. In particular, the hard disk drive parts produced in Thailand have exceeded a 50% share of the world market.

NSC Co., Ltd. http://www.nsc-osk.jp English
1-3-7, Shinke, Higashiosaka City, Osaka
ISO 9001
ISO 14001

"μ-MIM®" micro metal injection molding

G O T M

Key features of the product

1. Materials of poor formability or high melting point can be formed into shapes.
2. Commercial production of precision metallic parts of complicated shapes
3. Combination of different kinds of materials and various composite technologies

We specialize in commercial production of extremely small, high density and high precision parts of complicated shapes and less than several grams in individual weight, and have established production as a proprietary technology called "μ-MIM®". The technology can be applied to a variety of materials including stainless steel, titanium, and copper.

Solutions for our clients

Our forming technology can be applied in various fields including electronics, precision optical instrument, medical treatment, and robots. It is possible to combine and assemble more than two parts, and complicated shapes with under-cut restrictions are easily available using Net-Shape method, which make die release impossible in normal forming processes. Based on these technologies, we can promote a reduction in man-hours required for assembly, press-fitting, etc., stable quality, and cost reductions. Moreover, based on this technology, we have developed proprietary porous metallic materials (microporous metal) that contain innumerable micron-sized holes.

Taisei Kogyo Co., Ltd. http://www.taisei-kogyo.com English
26-1, Ikedakitamachi, Neyagawa 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

High-precision magnesium die-cast

G J T M

Key features of the product

1. Weight reduction by making products thinner
2. High dimensional accuracy
3. Flexible design

In response to weight reduction demands in how they lead to energy-savings, we specialize in products made of magnesium and can produce parts of difficult-to-make shapes if aluminum is used, using our molding technologies. Users also evaluate our technology for producing heatsink parts, for which aluminum parts are otherwise mostly used.

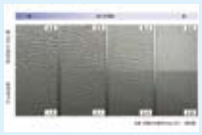
Solutions for our clients

Magnesium exists as an alternative material for aluminum by providing good radiation performance, flexible design and light weights that aluminum cannot achieve, as well as an alternative material for resin by providing strength that falls short if resin is used. For transport machines, light weights are essential. Based on technology that we have cultivated in producing magnesium die-casts, we can make parts lighter and thus improve fuel consumption. Better radiation performance resulting from thinner parts may improve luminous efficiency.

Sankiblast Co., Ltd. http://www.sankiblast.co.jp English／中文 ISO 9001 ISO 14001
6-82-2, Yamaga-cho, Yao City, Osaka

Cera-mat processing

G O J T



Key features of the product

1. Realizes low-gloss plastic products.
2. Give good durability to low-gloss products.
3. No coating and increased recycling rates are expected.

Although it depends on the texture type and depth, we have realized low-gloss processing that has not been achieved by conventional finishing. This processing gives good durability to products and the low-gloss effects can be kept for a long time. Reducing gloss helps products look high-class.

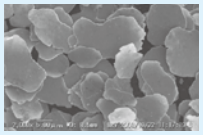
Solutions for our clients

Using etching technology, we perform texturing to molds. Our potential customers are mainly injection-molding mold makers, and also include the planning departments of molding makers and end-users (products makers). Our technology can be applied to molds for plastic products in all kinds of fields from automobiles to consumer electronics, and miscellaneous goods. The cera-mat processing renders a high-quality finish that is different from conventional delustering. One of the results is that customers who used to use the coating method could eliminate the coating process and rationalize production by applying cera-wat processing.

TANAZAWA HAKKOSHA CO., LTD. http://www.tanazawa.co.jp Japanese only ISO 9001
2-1-10, Nishiishikiri-cho, Higashiosaka City, Osaka

Plating of fine particles

G O J T M



Key features of the product

1. Plating on metal powder with no agglomeration
2. Plating controlled at nano level
3. Can be applied to various kinds of base material particles. Multilayer plating is possible.

Our technology enables the application of various types of plating to fine particles to which plating is generally considered difficult due to agglomeration and other reasons. The main applications are dummy balls used for chip parts manufacturing, conductive fillers, electromagnetic wave shielding materials, powder metallurgy materials, and design materials.

Solutions for our clients

We are mainly engaged in plating particles, and the assumed customers are in various fields.
For example,
(1) We produce custom-made dummy balls used for plating by the electronic component industry.
(2) For the industries that need conductive materials, we apply silver plating to the surface of inexpensive copper base material, and thus help customers reduce the use of precious metals and subsequently costs.
(3) We can plate on metal powder as requested to help customers develop new products by using functional materials.

Millennium Gate Technology, Co., Ltd. http://www.mg-tec.com/ Japanese only ISO 9001
3-5-24, Kamikita, Hirano-ku, Osaka City, Osaka

Surface treatment processing (Coating, vapor deposition, sputtering, microprocessing)

G J T M

Key features of the product

1. Increase added-value by decorating.
2. Add functionality by surface modification.
3. Add new modified functions by microprocessing.

Actual examples of our surface treatment processing include the following.
(1) Increased added-value by decorating the containers of cosmetics.
(2) Provided functionality to plastic electrical parts by applying vapor deposition.
(3) Engaged in commissioned production of bioanalysis chips made by organically combining vacuum deposition technology and microprocessing technology.

Solutions for our clients

Our surface treatment processing can produce the following effects.
(1) Weight reduction by the replacement of glass bottle containers with plastic containers that still look like glass containers.
(2) Adding both metallic coating and functionality by coating discontinuous films, which are metal films that block radio waves.
(3) Reducing the friction coefficient and enabling oilless sliding by applying MoST coating to metal, which is particularly effective for miniature parts and parts used in vacuums.

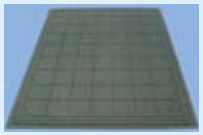
Osaka Vacuum Industrial Co., Ltd. http://www.osaka-vacuum.com/ Japanese only ISO 9001
4-6-50, Kamikita, Hirano-ku, Osaka City, Osaka

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

Anti Electrostatic Discharge Coating for Manufacturing Equipments of FPD, LCD and OLED

G O T



Key features of the product

1. Significant reduction of electrostatic discharge between glass substrates and processing stages
2. Applicable to existing processing stages
3. Available to high precision substrates.

When a bake coating is applied to the glass substrate adsorption stage of exposure equipment, etc. used in the process of manufacturing FPDs (flat panel displays) such as LCDs and organic ELs, separation charging, which occurs when the glass substrate and the stage are separated, can be largely controlled.

Solutions for our clients

In the processes of manufacturing FPDs such as LCDs and organic ELs, the manufacturers are enlarging the size of substrates and are increasingly using high-definition devices. Such changes have caused problems such an increase in electrostatic charging resulting from enlarged sizes and short-circuits caused by electrostatic discharge resulting from miniaturized circuits. Particularly, separation charging caused by the contact of the adsorption stage and glass substrate has not been solved by conventional methods such as the use of ionizers. Our separation charging preventive coating can solve electrostatic problems caused by separation charging that have not been solved by conventional methods, and thus will increase yield.

Nippon Fusso Co., Ltd. http://www.nipponfusso.com/ English
2-4-6, Mokuzaidori, Mihara-ku, Sakai City, Osaka
ISO 9001 ISO 14001

High frequency induction heating, precision surface hardening facilities

G O J T

Key features of the product

1. Minimal dimensional changes. Elimination of distortion and polishing processes possible.
2. World's fastest treatment rate (Cycle time)
3. Can reduce CO_2 emissions by 80% .

We design and manufacture high efficiency and high productivity equipment by using precision surface hardening technology based on induction heating (IH). We can propose and provide the most suitable heat treatment methods to customers. By further promoting technology development, we will deliver safer and more ecology-conscious surface treatment equipment.

Solutions for our clients

We provide integrated production services starting from the stage of trial manufacture to customers in industries that make automobiles, transport vehicles, heavy machinery, construction machinery, machine tools, machine parts, medical equipment, tools and energy. We can design and manufacture for customers products that employ the most effective induction heating-based precision surface hardening method, by not only reducing processes and improving product quality in view of all processes including contract processing, equipment planning, and planning and production schedule, but also reducing energy use and CO_2 emissions.

Fuji Electronics Industry Co., Ltd. http://www.fujidenshi.co.jp English／中文
6-71, Oibara, Yao City, Osaka
ISO 9001 ISO 14001

Metal heat treatment

G O T M

Key features of the product

1. Superior metal heat treatment technology
2. Thin-film formation
3. In-house development of heat treatment facilities

We have plants in Thailand, Malaysia, and China, and perform heat treatment of metal components used for automobiles, two-wheeled vehicles, and construction machinery. Moreover, by composite treatment with heat treatment and PVD and Me-DLC, we can enhance the abrasion resistance and tribological properties of metal components.

Solutions for our clients

We can perform high-precision heat treatment on metal automobile components such as engines, power transmissions, brake equipment, steering equipment, and suspensions. Moreover, because the heat treatment gives metal components strength, users can make the components smaller and lighter. We can apply heat treatment to gears and other metal components that are easily distorted, by generating only the smallest distortion, and can enhance the characteristics of components. Based on an advanced inspection system, we can provide stable quality.

TOHKEN THERMO TECH CO., LTD. http://www.tohkenthermo.co.jp Japanese only
5-22-3, Kuwazu, Higashisumiyoshi-ku, Osaka City, Osaka
ISO 9001 ISO 14001

Precision low-temperature carburization processing and nitriding

G O T M

Key features of the product

1. Stainless steels, Titanium alloys, general steel materials
2. Abrasion resistance, corrosion resistance
3. 3 DLC compound low friction

The low temperature surface diffusion processing technology has been applied to the driving gears of artificial satellites, and achieves good abrasion resistance and low friction even under high vacuum conditions. The diffusion layer is controlled by a micron unit and composite surface treatment. The technology can be used in various applications, with a friction coefficient 0.1 μ and a surface hardness from Hv800 to 3000 applicable.

Solutions for our clients

Our processing technology can be applied to a wide range of precision parts, including semiconductor manufacturing equipment, optical devices, hydraulic parts, and medicine manufacturing equipment. In particular, the processing technology ensures good abrasion resistance and corrosion resistance, and low friction, and adds high values to products by improving durability and achieving high speed and high accuracy. This technology ensures measures against environmental load and consumes low energy, and other new functions can be added to existing products. In particular, the technology has superior features in gears and high revolution functions, and of making frictional parts have long life and higher accuracy.

Asahi Heat Treatment Co., Ltd. http://www.asahi-nets.com/ Japanese only
2-1-9, Kuzuhara, Neyagawa 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

Manufacturing precision machined parts

J T M

Key features of the product

1. Efficiency and quick delivery realized by automatic compound lathes
2. High-precision grinding possible
3. Quality assurance using extensive measuring instruments

Because we can perform secondary and tertiary processing using CNC automatic compound lathes, we can reduce problems such as omitted processing and positioning failures. Even if a drawing is suddenly changed, we can reduce production time and costs because our system does not require processing jigs.

Solutions for our clients

With the use of CNC automatic compound lathes, we can mass-produce parts from one to 10,000 units, and can control dimensional accuracy, which reduces human error and dimensional error. Regarding work outsourced by other companies, we perform gear cutting, hardening and plating, as well as polish finishing in-house, and we can supply parts that are close to finished products. Moreover, because we are fully equipped with inspection and measuring instruments and can ensure quality assurance, customers can be satisfied with our QDC (quality, cost and delivery). All made-to-order machine products, spur gear, nut, screw, shaft, valve, pipe, roller, jig fixture, etc.

NAKASEISAKUSHO CO., LTD. http://www.naka-seisakusho.co.jp Japanese only
6-140, Ohtashinmachi, Yao City, Osaka
ISO 9001 ISO 14001

Automotive press mold maintenance services

G

Key features of the product

1. Maintenance services for press molds
2. Repair services within maintenance services
3. Mold remodeling services by design change

We provide mold maintenance services to automobile makers in Japan and overseas. We accept difficult-to-maintain molds from customers, and perform cleaning, repair, modification and design change of molds.

Solutions for our clients

By taking advantage of mold making technologies accumulated over a long experience with making automotive press molds, we support the launch of automaker projects around the world. We consider it a waste not to use our know-how to solve problems in the press mold industry. Molds directly made overseas and molds in the process of mass-production have various troubles and failures before start-up. We can provide our mold maintenance services by visiting customers in any place around the world.

MEISEI METAL INDUSTRIES Co., Ltd. http://www.meisei-metal.co.jp English／中文／한국어
4-5-12, Nozaki, Daito City, Osaka
ISO 9001 ISO 14001

Making molds by shortened process

G O J T M

Key features of the product

1. Shortened process based on over half a century of experience
2. Can make proposals on total cost reductions from planning to completion of products.
3. Can pursue research and development through industry-academia-government collaboration.

We provide molds made by a greatly shortened process that was uniquely developed based on the experience and results of producing more than 10,000 molds over half a century. We can make molds in a shortened process because we have pursued labor-savings, which were realized by reducing overall processes ranging from product planning and trial manufacture to commercial production and completion of metal products, and developed environment-conscious production technology that helps reduce total costs.

Solutions for our clients

Our press molds have been used in various fields including automobile parts, air conditioners, steel furniture, consumer electronics, vending machines, architectural hardware, and lighting equipment. The assumed customers are manufacturing industries such as automobiles, consumer electronics, air conditioners, steel furniture, architectural hardware and lighting equipment. We have made more than 10,000 molds, and we have realized high quality, low costs and quick delivery based on the experience and results of more than half a century. We have established an integrated production system comprised of proposal, manufacturing and processing that covers from product planning and trial manufacture to commercial production and completion of metal products.

KONISHI METAL MOLD ENGINEERING LTD. http://konishi-kanagata.jp/ English／中文／한국어／German
6-4-47, Nakaishikiri-cho, Higashiosaka City, Osaka

Burr and dust-less mold-making and press-working for printed circuit boards

O J M

Key features of the product

1. Burr-less through-hole half-cut-off
2. Burr-less processing of halogen-free materials
3. Processing close to drill cutting

We use technology that minimizes the generation of burrs and dust, which is based on our proprietary SAF method and press-working. Compared with drill cutting, our technology makes larger cost reductions possible. Our proprietary molds and processing methods have been developed by making use of 40 years of experience in mold technology.

Solutions for our clients

Our technology is most suitable for through-hole half-cut-off of printed circuit boards and processing of halogen-free materials. It helps solve environmental problems by decreasing the generation of burrs and dust. With more cost reductions than drill cutting and improved productivity due to press-working, we can enhance mass-productivity. Since emissions of dust decrease by 98% compared with normal press-working, our method is close to drill cutting.

Fujiwara Electronics CO., LTD. http://www.fdk-ltd.jp/ Japanese only
2-52, Minamikinomoto, Yao City, Osaka

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