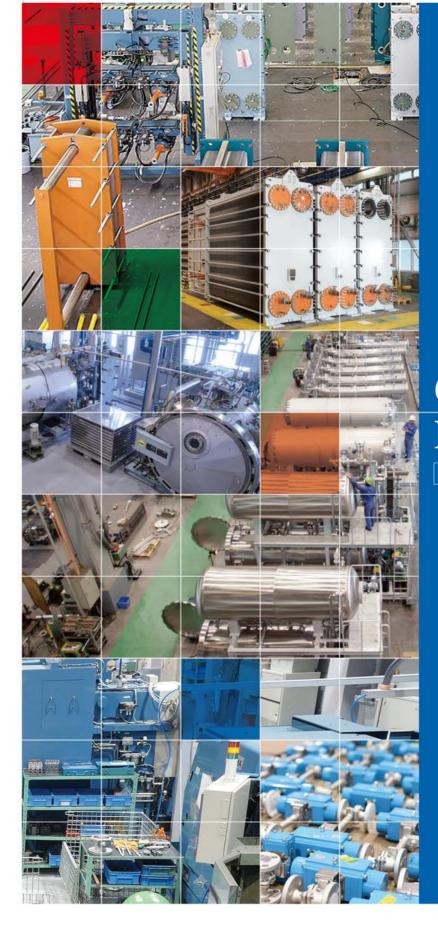
圧倒的な存在感No.1企業 | 倉| 新たな価値の造 Value Creation



CORPORATE PROFILE

2020 Version

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About HISAKA WORKS, LTD.



まごころ」のある人間になろう まごころ」のある製品をつくろう まごころ のある会社にひょう

Established in 1962

HISAKA WORKS, LTD. is a manufacturer that makes and sells plate heat exchangers, food sterilizers, pharmaceutical sterilizers, liquid dyeing machines, ball valves and the like.

Putting to use our long-cultivated technology for controlling the heat and pressure of fluids, we have provided many products that support safety, comfort and convenience in the fields of clothing, food, housing, pharmaceuticals, environments and energy through "sophisticated manufacturing technology".

Ever since our founding in 1942, we have contributed to enhanced efficiency of heat exchange processes and fluid control in various industrial fields – particularly chemicals, iron/steel, shipbuilding and air conditioning, besides also contributing to enhanced safety through sterilization in the food and pharmaceutical fields, and to high productivity and quality of dyeing processes in the fields of clothing and industrial materials. We have also contributed to reliable quality control systems and environmental conservation by making maximal use of cutting-edge facilities.

In today's world, diverse and sophisticated needs are progressing rapidly with the time, HISAKA will be working for further enhancements of customer satisfaction as an integrated manufacturer that works with development, design, manufacturing, and even sales, itself.

Message

Since our founding, we have provided highly reliable products to customers around the world, and have created many of the world's first dyeing machines, plate heat exchangers, pouch-food sterilizers and ball valves. Based on our company motto "Sincerity (Magokoro)", we will contribute to the realization of a sustainable society by creating value that exceeds the expectations of our customers while respecting the "Pursuit of a richer humanity" with aim of "HISAKA, a world-class company".



Technological capability grown from a multi-layered history

Through our technology, we, HISAKA has created many of the world's first developments in response to the needs of the times.



About the company emblem

The design combines Japanese Kanji character "⊟" used in our company name with "S" for the stainless steel. The rounded form means maturity, and the products and services produced in HISAKA, as well as the employees who work at HISAKA, have the hope that each of them will mature with a rich humanity.

Back in the days, when Japan relied on imports from the USA and Europe for most of industrial machinery, HISAKA succeeded in developing Japan's first dyeing machines, plate heat exchangers (PHEs) and ball valves, using its own original technology.

As a global specialist manufacturer possessing technology to control the heat and pressure of fluids, we have created many products that are "No. 1" in various ways - first in Japan, first in the world, largest in the world and so on, with "sophisticated manufacturing technology" as our basis.

We will be keeping up that spirit of development for future challenges in advanced manufacturing.

History

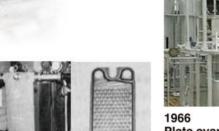
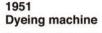


Plate heat exchanger

Embarking on development of a PHE with original technology, we perfected the "EX-2", Japan's first domestically



For the first time in Japan, we developed a piece dyeing machine that used a wince tank lined with thin stainless steel plate. Subsequently we successfully developed our own original high-temperature, high-pressure vari dyeing and drying machines

HISAKA's founding year



Ball valves

We made use of our unique stainless steel processing technology to develop Japan's first stainless steel ball valves (2 and 3-way).



Plate evaporator

We developed the plate evaporator as first commercial unit in Japan Related technology consists of our own

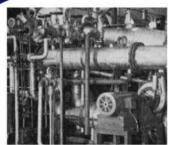


World's fastest Jet dyeing machine

We developed a "Rapid Circular" Jet dyeing machine that dved reduce one-third of process duration, and used one-half energy comparing to Previous model We sold 6,000 units of the next two models, CUT-RA and CUT-RZ, on world markets

1970s





World's first circular Jet dyeing machine

We developed the "Circular" - a dveing machine with performance hugely improved over previous machines, realizing completely in-liquid processing for the first time in the world. It spearheaded our advance overseas markets - for example being introduced for



Environmentally friendly, new liquid dyeing machine

We developed "ZERO Rapid circular" ZR with the concept of water conservation to save energy, increase productivity, and stabilize

2010s



Sterilizer made of Stainless stee developed

Sterilizer for retort food in pouch used to be made of steel, we newly developed the sterilizer which made of stainless steel to make it cleaner

2000s

1990s

1980s



Y-Type 3-way ball valve

Brazed plate heat exchanger

We developed a super-compact

at manufacturers of chillers and

brazed heat exchanger aimed

In response to demand for a leakage free 3-way ball valve for pneumatic conveyance of powder, we developed and commercialized a "Y-Type" 3-way ball valve.



World's largest plate heat exchanger

For use in central cooling systems (CCS) for petroleum, LNG and "UX-100" - the world's largest PHE. This was the start of HISAKA's history as "Pioneer of JUMBO PHE"



2001 Aseptic rice cooking line

We developed an aseptic rice cooking line that gives both safety and tastiness by incorporating our groundbreaking rapid food sterilizer "RIC" and achieving additive-free production of cooked rice.



Friction-free ball valve

We commercialized the Duax® ball valve, that achieves ball seat, for prolonged sealing life even under severe operating

High temperature- and

pressure-resistant PHE

We developed the "NX-50", that

pressure in excess of 9.5 MPa

achieved long life - double previous lifespans - under high temperature and pressure operation. It performs at temperature up to 250°C and



Plate heat exchanger for evaporation and condenser

2019

Hi-T Seat ball valves By compounding carbon-based

fillers in PTFE at a high ratio, we

developed a soft-sheet type ball

maximum operating temperature

valve that can be used up to a

BRC-013 type achieved a "45% lighter weight, 100% higher heat transfer performance, and 30% reduction in-container refrigerant volume" compared to conventional models



2020s

Hydraulic operated actuator/ Diaphragm valve

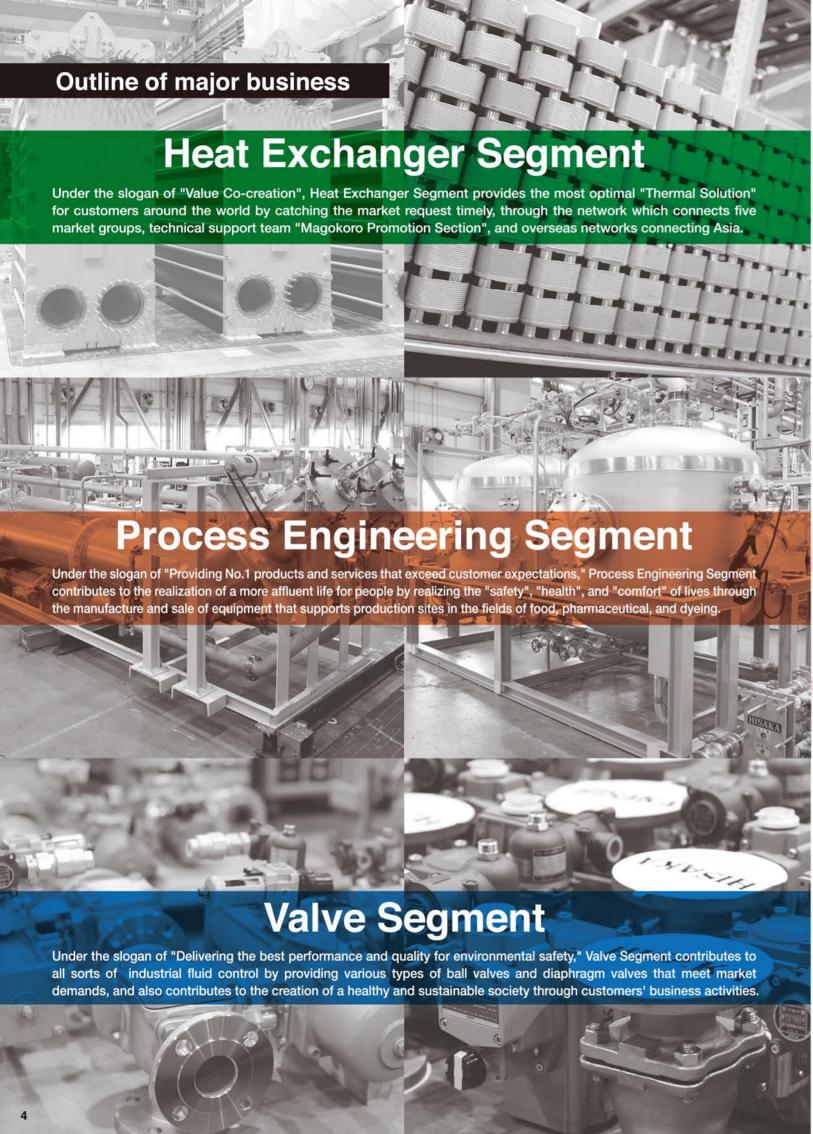
We developed a compact but high-power, high-durability hydraulic actuator and a high-corrosive and durable PFA-lining diaphragm valve

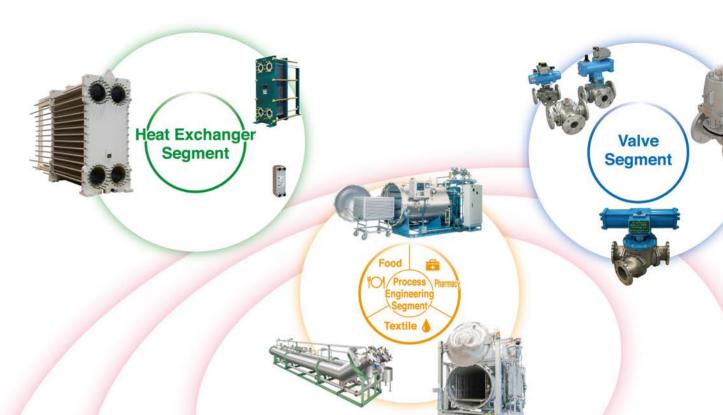


Update a record with UX-160"SUPER JUMBO"

The world largest, SUPER JUMBO PHE with 600mm Dia, made new history of "Pioneer of JUMBO PHE". UX-160 has 1.5 times larger capacity than existing JUMBO

hot water supply systems Subsequently we earned recognition the largest textile mill in USA. as "HISAKA Valve=Special Valve"





Clothing

Contributing to dyeing and value-added processing of various fiber materials that color our daily lives.

Food

Pursuing the good taste and safety of various foods that support our daily dining.

Housing

Playing a major role in the creation of comfortable spaces through air-conditioning systems.

Contributing to the health of people and the development of the pharmaceutical industry.

Environment

Developing products that can reduce the environmental impact on society.

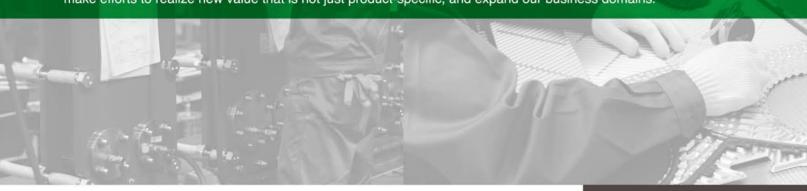
Energy

Supporting the stable supply and effective use of energy for a sustainable society.

Heat Exchanger Segment

Ever since developing the first plate heat exchanger in 1955, we have built up a long track record of deliveries for heat exchange process in various industries through our wide lineup from ultra-compact brazed heat exchangers (BHE) to world largest plate heat exchangers (PHE). Under the new slogan "Value Co-Creation", we are constantly leading the industry in providing "heat solutions" based on our core technologies of high-quality, reliable plate-type heat exchangers as the pioneer.

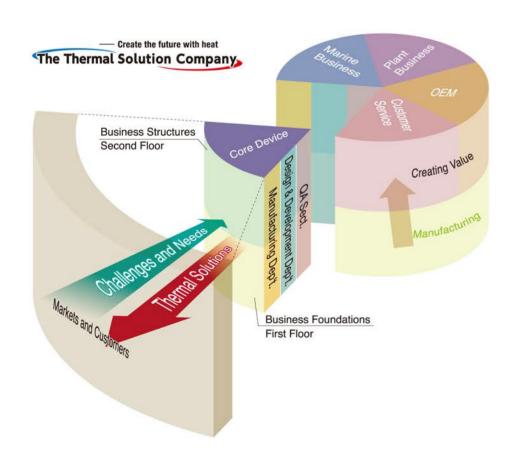
In order to respond to the rapidly changing global economy and market trends, we will identify the needs of the times, make efforts to realize new value that is not just product-specific, and expand our business domains.



"Value Co-Creation"

We aim to be the company with overwhelming presence which can solve social issues related to heat by showing results while exploring true value with customers, business partners, and colleagues.

This slogan expressives of our promise that the five market groups and Magokoro Promotion Section always strive to understand what customers want, think together with their business partners, care for own colleagues, show a presence in the community, and to explore the true value of all stakeholders through results.



Applications

ling water cooling, Lubricant oil (LO)

■Hot water supply and Heating

PHE

The heat transfer plates are thin sheets of corrosion resistant metal such as stainless steel or titanium. The plates are press-formed with corrugated pattern on the surface. Pressed pattern makes 3 to 5 times higher performance than Shell & Tube heat exchanger. Therefore PHE is playing an important role in all sorts of industries.

Plate heat exchanger (PHE)

Most popular and general kind of PHE, sealed by gaskets, is used in a large variety of industries and applications. We have a wide lineup from small size to super jumbo size, as well as many plate patterns, and it is suitable for all sorts of heat transfers. As the PHE is sealed by synthetic rubber gaskets, it is simple to disassemble, making internal cleaning

Semi-Welded PHE

This is a PHE in which the one-side synthetic rubber gasket seal lines are sealed by laser welding. It is used in a severe condition such as dangerous fluids, high-temperature and high-pressure that synthetic rubber gaskets could not cope with.

Multi Gap PHE

Special purpose PHE with channel space of up to 20mm and large flow channel cross section. A single plate combination can form 3 different multiple-channel configurations, and this specific feature is suitable for handling the fluid containing solids and/or fibers. This type of PHE is used at such as chemical, fiber, food, papermaking plants and so on

Plate Condenser

Large passage holes and plate patterns are suitable for huge capacity vapor, gas cooling and condensation. As it can reduce the pressure loss and be drained speedily, this type of PHE is exclusive use of cooling condenser.

Blazed plate heat exchanger (BHE)

Blazed plate heat exchanger has an integrated structure in which parts such as heat transfer plates and nozzles are brazed with copper or nickel that allowing mass production and significant reduction in the number of components. They are incorporated in such as air conditioners and hot water supply units, serving as a useful device in our familiar places.







BHEs for refrigeration

*BRC-013: Got the Parts Award in Environment. Manufacturing Parts Award 2018".

Various Thermal Solutions

In order to respond to rapidly changing markets and customer needs, we offer a variety of "Thermal Solutions" that are not only products alone, taking advantage of our extensive experience, we propose a plate heat exchanger that can be used "more" and "surely".

Welded Plate Heat Exchanger

Welded plate heat exchanger is structed by stacking press-formed plates and welding the two sides of the plates alternately to form a flow path, result in achieving high heat resistance and pressure resistance of 350°C and 3.5MPaG. It can also be used for Shell & Tube heat exchanger that have not been able to use plate heat exchanger until now, and there are a wide variety of flow path shapes.

Hi-TORNENDE series of the strainers

Hi-TORNENDE series, a strainer especially for the plate heat exchanger using seawater as coolant, removes foreign materials that may cause trouble, such as algae, shellfish, small fish and garbage.

Magokoro net

The establishment of a mail-order website has enabled us to provide a quick-delivery service for heat exchangers that can be accepted 24 hours a day, 365 days a year. Simulators are also available on the WEB for designing and selecting chillers and industrial heat exchangers.



Welded Plate Heat Exchanger



Hi-TORNENDE series of the strainers



Maintenance

Besides "Full Service Package" to be conducted at our site, we could provide a wide range of maintenance options such as on-site maintenance service including the sale of the replacement gaskets and other relative parts.

Full Service Package - for ease of mind and reliability

With the "Full Service Package", we take away your entire PHE to our service center, and subject it to a comprehensive ("full") package of maintenance program and regasketing including disassembly and evaluating the PHE conditions and reassembly and testing of the plates before return.



7

Process Engineering Segment

For the purpose of the realization of people's comfortable life, we provide the most suitable and cutting-edge machines, systems and services to the industry producing the products that form the basis of our daily lives.

We place top priority to thinking about "what do customers and markets want?" and "what can be new values?", then aim to be a manufacturer that can obtain customer's satisfaction as the closest engineering partner.

We will contribute to industrial development by offering our know-how and a productivity improvement plan including energy saving, automation, unmanned factory and the IoT together with our machines and systems.



Food

Pursuing the good taste and safety of various foods that support our daily dining.



Contributing to the pharmaceutical industry by increasing the safety and reliability of various medical products

Pharmacy

Textile

Coloring our life by dyeing of various fiber materials and the value-added processing.



onings and extracts

Alcoholic beverages
Sterilization of refined sake, beer, whiskey, wine, and distilled spirit

Pharmaceutical

Sanitary goods/products Sterilization of absorbent cotton, gauze and

Food

In various food processes, including retort foods, as people become increasingly concerned about food safety and security, we provide optimum equipment and systems for the customers to support safe and delicious foods producing. Since 1975, we have delivered more than 2,800 retort sterilizers to the world, and currently that is used for cooking and sterilizing more than 70% retort foods of Japan. In the beverage business, we are expanding the range of applications from beer coolers using plate-type heat exchangers to seasonings such as sake, soy sauce, and flavored sake, to sterilizing soft and vegetable beverages.



Retort food sterilizer (RCS)





Rapid preparation sterilizer (RIC)

Pharmacy





(REV : Forced circulation type)



Pure steam generator

food sterilization technology, are used for I.V. bottles/bags and PFSs (pre-filled syringes). We also have a long track record in the evaporation of various chemical solutions including Chinese herbal extracts, and have undertaken the consistent plant engineering from the extraction/separation of the pre-concentrated processes to the sterilization/drying of the post-pro-

There is also a record of deliveries to the modulation plant of topical and liquid

Our high quality pharmaceutical sterilizers systems, which were born from the

We will expand the new business domains such as enteral nutrition products and liquid food for medical use.

Textile

"Circular", our main product developed in the 1970s, is a world famous machine that continues to grow in response to the needs of the times. In the dveing process for fabric products that use large quantities of water. wastewater treatment is essential to prevent water pollution. We are working to develop a supercritical dyeing treatment system that uses supercritical CO2 gas, which is friendly to the global environment without discharging water.

In industrial materials other than apparel (such as car seats and interiors), we are contributing to the development of various industries by providing plant equipment not only for dyeing but also for a wide range of industries in the fields of high temperature, high pressure, vacuum and drying.



Jet dyeing machine (CUT-ZR)



Jet dyeing machine (CUT-SP)



Cheese dyeing/drying machine (LLC)



Waste heat recovery System

Valve Segment

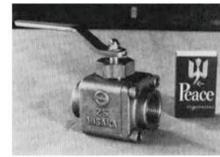
The ball valve we developed for the first time has been repeatedly improved and maintained the high quality. Applications are widely — liquids, gases, steam, granular powder, for example — and operating in severe conditions such as high viscosity, high/low temperature and high pressure. As a specialized manufacturer of ball valves, we are pursuing the "No.1 quality and performance with environmental capabilities and safety". We will continue to challenge for new products and services to meet the needs of the times with aggressive ideas toward the future so that we can provide value exceeding our customers' expectations.



Pioneer of ball valve

In 1958, our original stainless steel processing technologies were used to complete the first 2-way and 3-way SUS304 valves (Diameters: 3/4B and 1B) in Japan. We have solved a variety of problems while sincerely

addressing customer issues, and created a ball valve unique to Hisaka. It has become recognized as "A high-quality special valve in Hisaka" and been active in a variety of fields in over 40 countries around the world.



Japan's first ball valve

Ranging from general use to special purpose, we solve your SOS of valve.

Solution Offer Speedy







Ball valves and diaphragm valves are used in a wide range of fields including chemicals, machinery, iron/steel, metals, pulp/paper, environment, foods and power generation.

Ball valves and Diaphragm valves

General 2-way ball valves

Major products of Hisaka, which are widely used in general chemicals, petrochemicals, refining, iron/steel pulp/paper, electricity, gas, ships and food, are manufactured up to 600A.

General 3-way ball valves

There are two types of four-sided seat structure, T-port or L-port. By rotating the ball, the fluid can be branched with a single valve, simplifying the control system.

Diaphragm valves

The diaphragm valve of the PFA lining uses a PTFE diaphragm (membrane) as the sealant and is excellent in airtightness, corrosion resistance and durability of the valve seat.



Special / Limited application ball valves

We provide original ball valves for special applications by adding customizations to meet customer's needs and applications.

Metal touch ball valves

Ball valves sealed with metal sheets that can be used under severe conditions, such as high temperature, high viscosity fluids and abrasive powders and slurries that are difficult to handle with soft sheets.

Jacketed ball valves

For fluid that solidifies at room temperature, a jacket is welded to the ball valve body and heat medium is applied to the inside to ensure heat insulation and cooling. There is no risk of pressure loss or remaining fluid in the piping lines due to the full bore structure.

Semi-jacketed ball valves

The weight and size of ball valves with jackets have been reduced. Valves that can be used with a pig system for piping cleaning have a lot of supply records with chocolate production plant.

Y type 3-way ball valves

A ball valve for switching used in air transport lines such as powder and pellets ensures sufficient wall thickness and strength, allowing smooth branching without residual powder.

Tank-bottom ball valves

The ball valve used at the bottom of any reaction tank reduces the stagnated fluid by minimizing the gap between the tank and the valve as much as possible, and the ball surface is approximately the same as the bottom of the tank, allowing uniform agitation of the fluid.

Hi-T seat ball valve

By compounding carbon-based fillers in PTFE at a high ratio, this soft sheet type ball valve can be used up to a maximum operating temperature of 300°C.

The features of conventional PTFE seats, such as low-torque, high sealability and maintainability, and 2WAY specs remain the same, but compared to metal sheets and carbon sheets, they have superior cost performance.

Sealed valves

It is used in the line for draining mud water (water with dirt/sand) discharged during tunnel construction, and it is possible to reduce the increase in the operating torque due to mud water.

We have developed a compact automatic valve (actuator) for limited space in the tunnel.





Sealed valves (HF

11

10

■Chemical plants

■Iron/Steel plants

■Environment

■Food and beverage

■Electricity and energy

■Pulp and paper plants

Chemical plants for paints, plastics, polypropylene, and so on

Blast-furnace fuel blow, cooling, silica

lines for pulverized coal and iron oxide

Plants for preparing, washing, bleaching and concentrating pulp, and for making it

Sludge, garbage and sewage treatment plants, waste plastic recycling facilities,

Chocolate, cacao, edible oils, salts

Ash treatment, boiler equipment and other items for thermal power stations

Group Companies

HISAKA has established a stable service network with domestic and foreign group companies in order to respond to customer's requests from all angles. MICRO ZER® MICROZERO CO., LTD. ASAHI INDUSTRY CO KOMATSUGAWA CHEMICAL AUTOMATIC SYSTEM RESEARCH CO., LTD. HISAKAWORKS S.E.A. SDN. BHD HISAKA WORKS (CHINA) CO., LTD. Solar power generation (Konoike Plant) Besides our Heat Exchanger, Process Engineering, and Valve Segments, we also practice environmental conservation by promoting a solar power generation business.

Group Companies

Japan

MICROZERO CO., LTD.

Head Office: Tachikawa City, Tokyo Plant: Ome City, Tokyo

ASAHI INDUSTRY CO., LTD.

Head Office / Plant: Ome City, Tokyo

KOMATSUGAWA CHEMICAL ENGINEERING CO., LTD.

Head Office: Chiyoda-ku, Tokyo Plant: Mitaka City, Saitama / Narita City, Chiba

AUTOMATIC SYSTEM RESEARCH CO., LTD.

Head Office: Chiyoda-ku, Tokyo Plant: Mitaka City, Saitama

Business activity

Manufacturing and sales of teflon diaphragm valves with sophisticated sanitary technology - also carrying out engineering and plant installation aimed mainly at the dairy, beverage and healthcare industries

Business activity

Manufacturing and sales of fully automatic continuous sterilization cooler and food processing machines mainly at the food market.

Business activity

Manufacturing and sales of food and chemical machinery and culture tank, also conducting plant engineering business.

Business activity

Developing and manufacturing sensor elements such as oxygen sensors and turbidimeters required for culture equipment, and the systems that control the culture equipment itself.

Malaysia

HISAKAWORKS S.E.A. SDN. BHD.

Head Office / Plant: Kuala Lumpur Branch Offices: Penang / Johore

HISAPINO (Representative Office)

Office: Manila

HISAVINA (Representative Office)

Office: Ho Chi Minh / Hanoi

Business activity

Strategically deployed as an ASEAN headquarters, providing new unit sales, genuine spare parts and maintenance service of HISAKA plate heat exchangers in ASEAN region.

Completed the S.E.A. second plant with main facilities of large size Forming Press and Trimming Press in June, 2016.

Business activity

Representing HISAKAWORKS S.E.A., assists entire HISAKA users in Philippines and providing technical support about HISAKA plate heat exchangers.

Business activity

Representing HISAKAWORKS S.E.A., assists entire HISAKA users in Vietnam and providing technical support about HISAKA plate heat exchangers.

Thailand

HISAKA WORKS (THAILAND) CO., LTD.

Head Office: Bangkok Branch Office: Sattahip

HISAKAWORKS SINGAPORE PTE. LTD.

Head Office: Singapore

Indonesia

Head Office: Jakarta

Business activity

As one of subsidiaries under HISAKAWORKS S.E.A., providing new unit sales, genuine spare parts and maintenance service of HISAKA plate heat exchangers in Thailand. Not only HISAKA plate heat exchangers, but also providing new unit sales of HISAKA ball valves as well.

Business activity

As one of subsidiaries under HISAKAWORKS S.E.A., providing new unit sales, genuine spare parts and maintenance service of HISAKA plate heat exchangers in Singapore.

PT. HISAKA WORKS INDONESIA

Business activity

As one of subsidiaries under HISAKAWORKS S.E.A., providing new unit sales, genuine spare parts and maintenance service of HISAKA plate heat exchangers in Indonesia. Not only HISAKA plate heat exchangers, but also providing new unit sales of HISAKA ball valves as well.

HISAKA WORKS (CHINA) CO., LTD.

Head Office: Changshu Branch Offices: Shanghai / Guangzhou

Business activity

Providing full line of HISAKA products, which are HISAKA plate type heat exchangers, HISAKA food processing & textile machines and HISAKA ball valves, genuine spare parts and servicing in China.

Saudi Arabia

HISAKA MIDDLE EAST CO., LTD.

Head Office / Plant: Dammam

Business activity

In order to strongly support to whole HISAKA users in Middle East region, focusing on providing genuine spare parts and maintenance service, especially for existing thousands of jumbo units, which HISAKA ever delivered. HISAKA ME is capable enough to cover its massive demands.

South Korea

HISAKA KOREA CO., LTD.

Head Office: Seoul Branch Office: Busan

Business activity

Providing new unit sales, genuine spare parts and maintenance service of HISAKA plate heat exchangers in South Korea

Solar power generation business

Konoike Power Plant: Osaka

Business activity

Through our solar power generation systems utilizing the Konoike Plant rooftop, we serve the promotion of renewable energy and contribute to

Introduction of New Organization

New Business Promotion Department

In 2018, we established "New Business Promotion Department" to create new businesses and develop new products that contribute to a sustainable society, as part of our management initiatives that emphasize ESG and SDGs. Toward 2042, which marks the 100th anniversary of our founding, we have gathered our heat and pressure control technologies for fluids, and are promoting the search and commercialization of new businesses and products that contribute to solving social issues related to energy, water and food.

ESG: Initials of the environment, society and governance.

SDGs: Abbreviation of Sustainable Development Goals (17 sustainable development goals set by the United Nations).

Role of New Business Promotion Department

The New Business Promotion Department will aim to establish the fourth and fifth businesses, which will play an essential role following the current three businesses. Target areas and markets for new businesses are set in consideration of consistency with our management philosophy and vision, new business themes are searched using the strengths of Hisaka. For themes that are sufficiently feasible, we invite members from each business division and outside the company to start commercialization.



We believe that the new fourth and fifth business that show HISAKA's mission will certainly become clear in the red area where the three circles are overlapped. We aim to create a mission that is motivating and rewarding for employees.

Enhance Well-Being Section

In the 100-year life and today's stress society, it has become an important issue to create a society where all people can continue to play an active role in good health and a society where people can live with peace of mind. For company's sustainable growth, we believe that it is essential for our employees to be in a physically, mentally and socially good condition (well-being). To promote the mental and physical health of our employees, we established "Enhance Well-Being Section" in 2018.

Role of Enhance Well-Being Section

In addition to preventing illness, we are developing communication promotion measures, such as counseling and company philosophy sharing, in order to enhance employee motivation and attachment to the company and workplace, and to support the improvement of relationships of trust with colleagues, as best supporters who stay close to each employee's feelings.

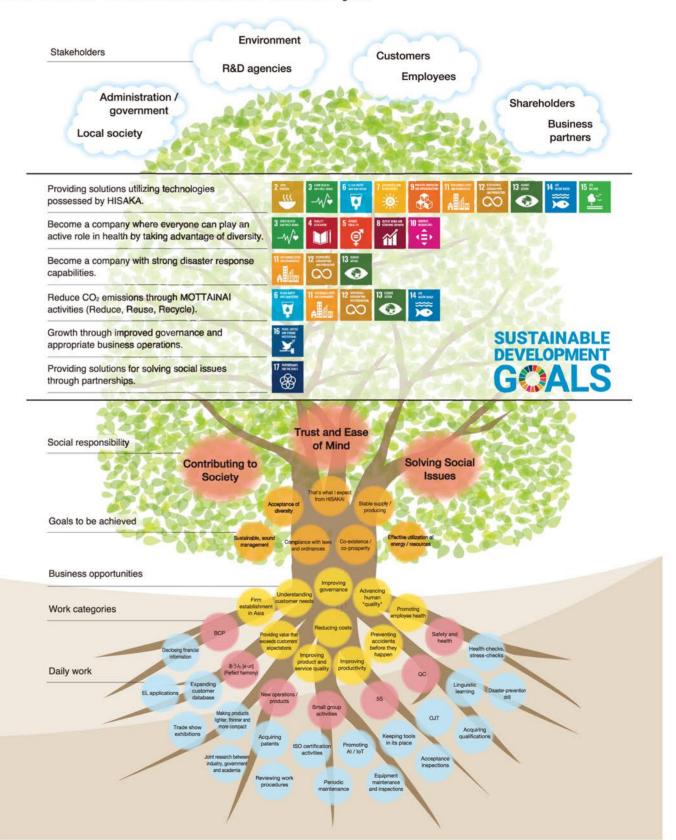


HISAKA CSR-SDGs

Thoughts on "Tree of CSR" ~The CSR Vision of the HISAKA Group~

As part of CSR promotion, we have selected SDGs (Sustainable Development Goals) and set a new CSR-SDGs Vision to be a company that can solve social issues and contribute to the realization of a sustainable society.

SDGs: Adopted at the United Nations Summit in September 2015, 17 goals set by 193 UN member countries to achieve in 15 years from 2016 to 2030. We believe that we can deal with 16 of these 17 goals.



15

14

From Japan to Asia. From Asia to the world. The expansion of **HISAKA** global network.

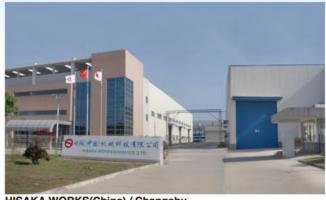
Since beginning full-fledged export activities in the 1960s, HISAKA WORKS, LTD, has been developing technology by keeping its focus on the global market, and has won great reviews for the supplied products from customers all over the world.

In recent years, we have used our reliable products as a springboard to expand our distributors and technology tie-up partners and to set up affiliate companies in various global locations. Through these and other efforts, we now have in place a network able to provide swift responses tailored to customers' needs, from equipment introduction through to maintenance.



HISAKAWORKS S.E.A. / Kuala Lumpur

Technology transferee



China (Guangzhou)

HISAKA WORKS(China) / Changshu

Thailand (Bangkok)

Thailand (Sattahip)

Malaysia (Penang)

Malaysia (Johore)

Indonesia (Jakarta)

Malaysia (Kuala Lumpur)

Singapore

The "G"s of **HISAKA** is aiming at





South Korea (Seoul)

China (Changshu)

China (Shanghai)

Philippines (Manila)

Vietnam (Hanoi)

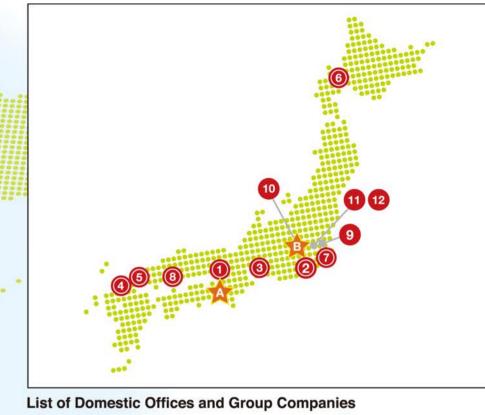
Vietnam (Ho Chi Minh)

China (Yantai)





This "G" stands for four things: "Growth" - our aim for growth and development; "Global" - our aim to be a global household word; "Governance" - our aim for business with high earning power; and "Goal" - our aim to achieve our goals. HISAKA will be taking on the challenges toward further strides forward, with the four "G"s emblazoned on its banner.



- Head office (Osaka Osaka city)
- Tokyo branch (Tokyo Chuo-ku)
- Nagoya branch (Aichi Nagoya city)
- Kyushu branch Fukuoka Fukuoka city)
- Kitakyushu branch
- Hokkaido Sales Office (Hokkaido Sapporo city)
- Chiba Sales Office (Chiba Ichihara city)
- (B) Onomichi Sales Office
- Konoike Plant (Osaka Higashiosaka city
- Ome Plant (Tokyo Ome city)
- 9 MICROZERO CO., LTD. (Tokyo Tachikawa city)
- 10 ASAHI INDUSTRY CO., LTD. (Tokyo Ome city)
- KOMATSUGAWA CHEMICAL ENGINEERING CO., LTD. (Tokyo Chiyoda-ku)

17

AUTOMATIC SYSTEM RESEARCH CO., LTD. (Tokyo Chiyoda-ku)







Konoike Plant (Osaka)

Facilities

The Konoike Plant – central hub of HISAKA WORKS, LTD.'s manufacturing – has introduced facilities with original HISAKA technology and is moving ahead with drastic raising of the efficiency of its manufacturing processes. As the HISAKA Group's mainstay factory possessing sophisticated manufacturing technology that creates high quality products recognized by around the world, the Konoike Plant aims for tireless progress in the future as before.

Heat Exchanger Division



40,000-ton automated press line

Its 40,000-ton press – the largest class in the world – is an automated line composed of a forming press, crack detector and conveying devices. It produces the world's largest SUPER JUMBO plates for use in LNG plants and similar, as well as various different types of large size titanium plates. It's the production line that supports "Pioneer of Jumbo plate"

Heat Exchanger Division



Continuous vacuum furnace

This continuous vacuum furnace, which is the world largest class in both size and capacity is used for brazing the brazed heat exchangers. Continuous vacuum furnace with 3 chambers for preheating, heating and cooling sections, it can be brazed maximum load of 2,000 kg.

Process Engineering Division



High precision automatic welding machine for stainless steel

We were Japan's first high precision automatic welding machine developer and to successfully apply it in the manufacturing of pressure vessels. This machine can weld many high quality materials such as super stainless steel. It plays an active role in making food machines and dyeing-finishing machines in high quality.

Valve Division



5-axis vertical type multi-functional machine

A numerically-controlled multi-functional machine that fabricates main body of large size valves of up to 20 inches. Possessing the features of both a vertical lathe and a machining center, it performs turning, milling, drilling and tapping. With 5-axis control, it can be machining multiple surfaces in a chucked state, and has brought large efficiency production by enhancing dimension precision, reducing the transition time to the next step, and cutting a useless work such as standby time and replacement of the machining tools.

Heat Exchanger Division



20,000-ton automated press line

A totally automated, unmanned press line composed of a forming press, trimming press, crack detector, conveying plates, plate collecting device, pressing die replacing device. This high efficiency, state-of-the-art press line achieves productivity 1.5 times higher than previous lines and can cope with plate sizes ranging widely from medium to large size.

Process Engineering Division



Dedicated clean assembly space

This is a dedicated space for assembly of sterilizers and other devices requiring high cleanness, for delivery to the pharmaceutical industry. The pharmaceutical devices assembled in this dedicated clean assembly space contribute to the pharmaceutical industry for increase safety and reliability.

Process Engineering Division



Bending rolls

Bending technology of the stainless steel is indispensable for fabricating sterilization, disinfection and dyeing equipment. Our high quality products are supported by technology and equipment that can accurately bend stainless steel plates of a wide variety of thicknesses.

Valve Division



Multi-task Processing Machine

All the machining of ball valves – including lathe turning and milling – is carried out by numerically-controlled multi-task processing machine. Equipped with gantry robots, this machine is able to operate 24 hours unmanned, enabling ball valve productivity to be raised and shortening the delivery time.

R&D

HISAKA WORKS, LTD. with proud of its high level technology, we continually conduct research and development for increasingly diverse and sophisticated needs by utilizing advanced technology. In the future as before, HISAKA makes much effort to launch the No.1 products of the world in each development labs with versatile R&D equipment.



Heat exchanger development & testing lab

This lab inherits the frontier spirit that developed the Hisaka original PHE. It continues to research and develop groundbreaking PHEs with performance, functionality, prices and quality, by further expanding and evolving the plate technology we have cultivated up until now.



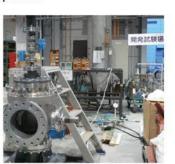
Food development & testing lab

This lab works as testing purpose for customers to develop their own products that being facilitated as per each specific request. New devices and systems are materialized that figure out appropriate parameters and conditions. Customers can bring their own test items here to conduct R&D to pursue the best sterilization recipe for various products.



Dye development & testing lab

Besides conducting tests, this lab also provide customers for bring-in tests, and development tests with the purpose of dye development, and of course new product developings. Many dyeing techniques for globally-salient fashions and new synthetic fibers were born here.



19

Valve development & testing lab

This lab carries out customization of valves according to customers' needs. Further, using installed testing equipment of various kinds, it is proceeding with development of the valves that are fitted to users' needs.

Environmental conservation activities

ISO 14001

HISAKA WORKS, LTD. acquired ISO14001 certification in December 2007.

By means of this, we hope, as a "corporation that contributes to the global environment through its business activities, products and services", to grow into a company that, to a higher degree than ever before, enjoys ease of mind and trust from all who are concerned with it.

Environmental policy

Promote environmental activities with company motto "Sincerity (Magokoro)" as basic philosophy.

Manufacture products that are "people and environment friendly." Make the company "people and environment friendly." Become "people and environment friendly" Corporate Citizens.

Environmental Declaration / Action Guidelines

As an environmentally considerate company, HISAKA WORKS, LTD. will promote six Action Guidelines as following statements.

- 1. To observe the law and regulations of the environment and agree on the social agreement.
- 2. To promote the development and sales of environmentally-conscious products based on customer needs.
- To make efforts to save resources and energy by preventing environmental contamination and activities to reduce environmental impact.
- 4. To offer service that contributes to the reduction in environment impact for customers.
- 5. To carry out corporate activities that harmonize environment, quality, safety and cost control, and sustainability.
- 6. To continuously improve environmental activities and integrate with full participation with the region.

Certification acquired

ISO 9001

This international standard aims to the continuous management, improvement, and maintenance of quality management systems that provide high-quality products and services to ensure customer satisfaction.

In HISAKA, we place top priority on the safety and security of our customers, and have built an original quality management system that incorporates leading-edge testing equipments.

ISO 45001

This international standard aims to continuously improve occupational health and safety by establishing a safe and healthy work environment and preventing occupational accidents.

Since our founding, HISAKA had been conducting its original activities, and now has acquired this certification at Konoike Plant. For our customers, we will continue to provide the safe products with full of sincerity (Magokoro).

Code and Standard

- ■Konoike plant
- Japanese PV code class 1
 ASME "U" stamp
- ■Division
 Heat Exchanger Division ClassNK Approval of Manufactures
 Process Engineering Division China Special Equipment Manufacture License
 Valve Division Japan High Pressure Gas Safety Act authorization, API 6D CERTIFIED

18

Contact Information

Japan

Heat Exchanger Division

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Sales Dept.

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https://www.asahiindustry.co.jp/e/

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https://www.komatsugawa-kce.co.jp/index_eng.html

AUTOMATIC SYSTEM RESEARCH CO., LTD.

TEL: +81-48-956-7811 http://www.e-asr.co.jp/



The showroom at the Konoike Plant was renovated