EBARA CORPORATION
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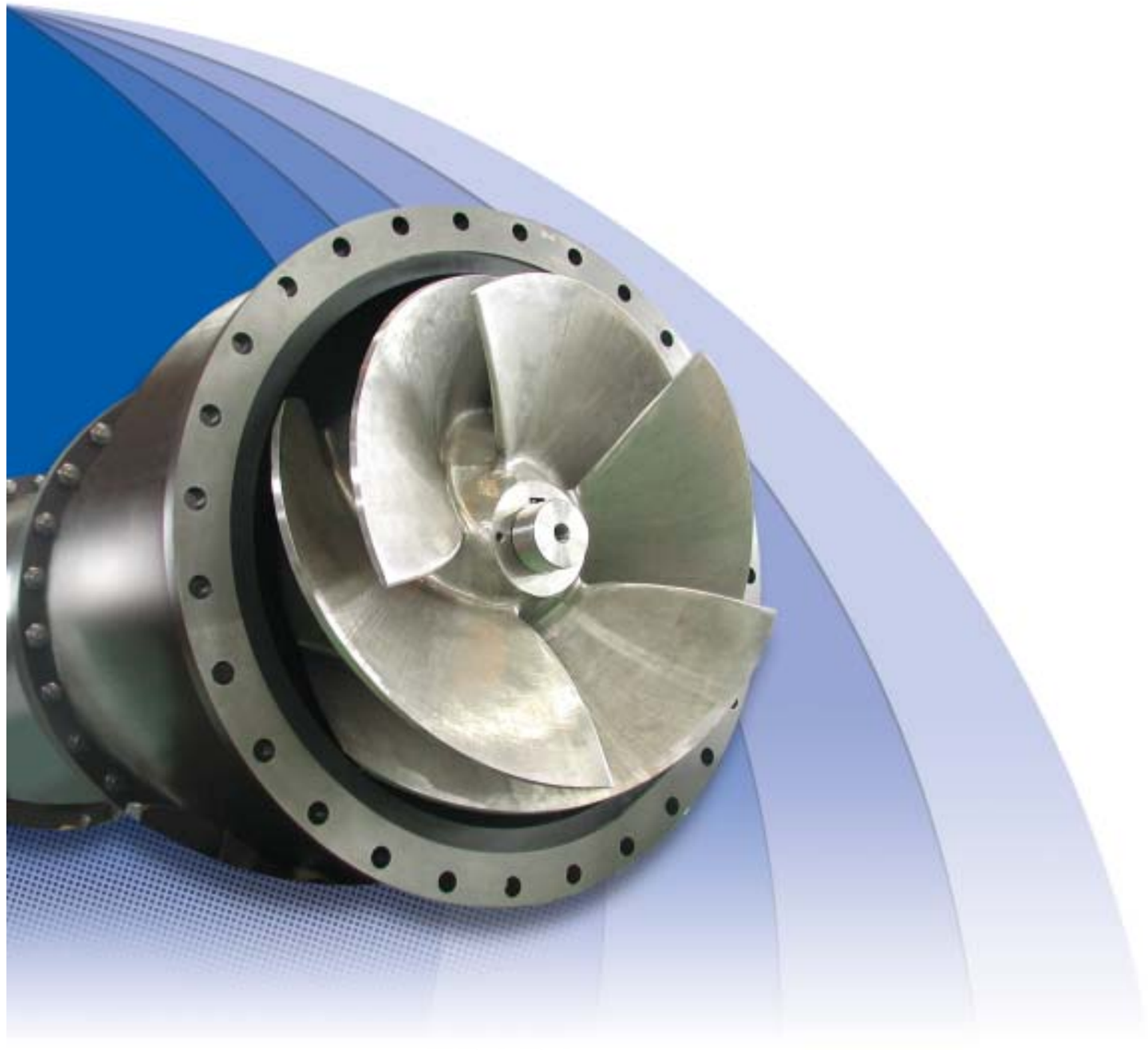
CORPORATE PROFILE



EBARA CORPORATION

To continue supporting your tomorrow. That's EBARA's mission.

Water nourishes lives, electricity sustains society, and electronic technology brings diversity to daily life.
In their daily lives, people receive great benefit from things such as nature, science and technology.
What should we do to support an affluent society in which people can live in safety, and
what should we do for further progress?
EBARA has been thinking about the future of people, society, and the environment
through "monozukuri" (manufacturing) since it started business as a pump maker in 1912.
The pumps supporting society's infrastructure,
incineration and gasification technologies supporting environmental conservation,
and semiconductor manufacturing device supporting the information society,
— EBARA's products and technologies — are behind the scenes.
However, everyone comes into contact with those technologies in all aspects of society, industry, and daily life.
Treating all relationships with respect, EBARA helps to make an affluent society.

CONTENTS

* Models (expressed in alphanumeric characters) in this catalogue are the model names of EBARA products.

With the founding spirit of *"Netsu To Makoto"*, EBARA continues to pursue superior technologies.

"Netsu To Makoto" means grappling with a task while having enthusiasm and sincerity based on one's ingenuity and effort, instead of simply doing an assignment. And it was the spirit of Issei Hatakeyama, the founder of EBARA. That spirit is the backbone of EBARA, a company that keeps pursuing superior technologies.
Hatakeyama founded the Inokuchi Type Machinery Office in order to spread superior products based on the world's highly-regarded centrifugal pump theory invented by Dr. Ariya Inokuchi (Dr. Ariya was Hatakeyama's professor at Tokyo Imperial University.)
Since then, EBARA's history has involved a continuing pursuit of superior technologies.

Hatakeyama manufactured unprecedentedly large pumps at that time in a workshop without a crane. He thought that the waterworks pump market, dominated by imported products, was an area in which the nation was losing, and he kept stressing the need to be able to compete in terms of performance, to beat the foreign competition. It was this spirit of *"Netsu To Makoto"* that led to the adoption of Japanese-made pumps and produced various first made-in-Japan devices such as an axial-flow pump, centrifugal chiller, and rapid sand filtration system.

On the other hand, Hatakeyama was anxious about damage to waterworks caused by earthquakes. Therefore, he constructed and donated a water supply facility at his own expense. As a result, the facility helped waterworks to recover after the Great Kanto Earthquake and helped to prevent the spread of epidemics. He also acted as a chairman of the Japan Institute of Invention and Innovation to improve the social standing of engineers and inventors. Hatakeyama's spirit of social service is another backbone of EBARA, together with the belief that *"working is for our own benefit and also contributes to society"*.

Today, about a century after the company's foundation, Hatakeyama's spirit is still present in EBARA's businesses concerned with fluid machinery and systems, environmental engineering, and precision machinery. And Hatakeyama's spirit still lives on in EBARA of today.
We believe that Hatakeyama's spirit is a heritage we should directly and continuously pass on to the future generations of EBARA, a company that continues to pursue superior technologies in every field of business and aims to contribute to society by manufacturing better products.
EBARA will make progress toward the future, with its founding spirit.

Issei Hatakeyama, Founder

1912 to 1940s

- 1912 Inokuchi Type Machinery Office founded.
- 1920 EBARA CORPORATION established.
- 1921 Delivered the first centrifugal blower (started manufacturing blowers and fans).
- 1924 Completed the first prototype production of axial-flow pump (the first made-in-Japan axial-flow pump).
- 1930 Delivered the first centrifugal chiller (the first made-in-Japan centrifugal chiller).
- 1931 Delivered the first rapid sand filtration system (the first made-in-Japan rapid sand filtration system).
- 1945 Took orders from the Ministry of Agriculture, Forestry and Fisheries for agricultural pumps to boost food production (contributed to boosting food production after the war).

1950s to 1970s

- 1950 Delivered the first mixed-flow pump (many pumps were delivered for agriculture, waterworks, and power plants thereafter).
- 1956 Started to produce the standard pump (S-type) (started a full-scale business for stanadard pumps).
- 1961 Delivered the first mechanical stoker type municipal waste incineration facility (started a business of waste treatment facility).
- 1962 Delivered the first Greenleaf filter (a rapid sand filtration system for water purification plants).
- 1976 Delivered the world's largest compressor for LNG plants at that time.
- 1979 Delivered the first double case pump (the first made-in-Japan double case pump; many pumps of this type were delivered for the power generation and energy industry thereafter).

1980s to today

- 1986 Delivered the first roots-type dry vacuum pump (started a business of the semiconductor equipment).
- 1989 Delivered the first internally circulating fluidized bed boiler (delivered many boilers for heat recovery and power plants thereafter).
- 1992 Delivered the first CMP systems (delivered many CMP systems to semiconductor manufacturers all over the world thereafter).
- 2002 Delivered the first fluidized bed gasification and ash melting plant for municipal waste (delivered many systems for municipal waste facilities).
- 2006 Completed the prototype of 40,000-hour endurance fuel cell stack (progress toward widespread use of residential fuel cell systems).

1912 to 1940s

Building the foundations of EBARA

Issei Hatakeyama founded the Inokuchi Type Machinery Office in 1912. That office became EBARA CORPORATION and made steady achievements thereafter, as a maker of Japanese pumps.
Then we released a number of first-in-Japan products and established ourselves as an industrial machinery manufacturer. After World War II, we developed the business of supporting people's lives, for example by supplying agricultural pumps to boost food production, and built the foundations of today's EBARA CORPORATION.

1950s to 1970s

EBARA's technologies demanded by society

In the course of recovering from the war and entering a high-growth period, Japan proceeded to construct social infrastructure such as waterworks and sewers. During this period, EBARA was playing an important part as the number one maker of pumps and water treatment equipment. We devoted our energies to developing advanced technologies to meet customer's needs in industrial fields and benefit society. As a result, we contributed to solving environmental problems, which were coming to the fore at that time, and supported society by manufacturing products always with an eye on people's lives.

1980s to today

EBARA's technology spreading throughout society

The semiconductor industry plays an important role in the information society. The energy industries, such as oil and gas businesses, are growing as demands for energy are expanding in the world. Technologies for improving the environment are being requested more and more in an environment-conscious world.
On the basis of its abundant experience and technologies that is has accumulated for a long time, EBARA has aggressively developed businesses in new fields.
Always taking the customer's viewpoint, and spanning areas from state-of-the-art industries to fields closely related to people's daily lives, EBARA will support society, industries, and people's lives in many aspects with its capabilities in superior technology.

EBARA conducts business activities with *“concerns”*.

Even though the times change, EBARA pursues technologies with the same spirit as it had at its foudation.

EBARA produces leading-edge products in the fluid machinery and systems, environmental engineering, and precision machinery businesses, and has grown into a world-class industrial manufacturing enterprise that supplies products for many systems associated with social foundations.
It is almost a century since our foundation.
EBARA is geared for further leap forward with our four *“concerns”*.

The Group's *“Concern”* as a Manufacturing Enterprise

The Group is aware that manufacturing and marketing superior hardware and providing top-quality supporting services are the keys to business growth. The Group will further polish its capabilities in the areas where it is strong.

***“Concern”* for Improving the Environment**

By continuing to provide products and services that conserve energy and contribute to preserving the natural environment, the Group intends to contribute to improving the Earth's environment and assist in passing this improved environment on to the next generation.

***“Concern”* for Internal Control Systems and Improvement in Operating Efficiency**

To create a culture that emphasizes compliance, we are continuing to work not only to enhance our internal control systems and enhance management transparency but also to improve operating efficiency.

“Concern”* for Our Motto, *“EBARA Walking with Its Customers”

We will aim to accurately identify and anticipate customer needs, which change from one era to the next and, by responding to these needs, will work to enhance customer satisfaction and, at the same time, work toward the further development of the EBARA Group.

“Concern” for growing as the world’s first-grade industrial machinery maker

EBARA conducts business activities with *“concerns”*.
We will achieve continuous growth by providing superior products and keep our position as one of the world's leading manufacturers of industrial machinery.

- Manufacturing and selling superior products and providing support.
- Establishing a framework of selling and supporting products on global markets.
- Improving and developing original products, devices, and materials.
- Increasing market shares of core business
- Expanding new businesses and reducing lead times.

One of the world's leading manufacturers of industrial machinery

“Concern” contributes to improvement of the Earth’s environment.

EBARA, as a manufacturer of industrial machinery, contributes to the improvement of the Earth's environment by developing and producing environmentally friendly and energy conserving products in the fluid machinery & systems, environmental engineering, and precision machinery businesses, making best use of the engineering technologies we have accumulated over a long time.

Manufacturing and selling superior products as a manufacturer of industrial machinery and providing high-quality support.

- Saving costs
- Simplicity
- Making products compact and lightweight
- Long-life and energy conserving characteristics
- High performance
- Reducing emission of greenhouse gases

Engineering business developed by making full use of the environmental and energy-related technologies we have accumulated over a long time.

- Water treatment technology
- Incineration and gasification technology
- Biomass treatment and recycling technology
- VOC treatment and deodorizing technology
- Operation and maintenance

Contribution to improvement of the Earth’s environment

EBARA increases its markets in various business fields throughout the world.

Compressors and pumps used in oil and gas facilities in the Middle East.
Pump facilities and water treatment facilities in China and other Asian countries.
The semiconductor markets extending all over the world.
EBARA's products are used to promote industries and to build infrastructures all over the world.
Our worldwide business is made possible by linking up our four business bases in Japan,
branch companies and offices all over Japan, over one hundred associated companies,
representative offices in major cities overseas, and subsidiaries
and affiliated companies in 17 countries all over the world.
The three in-house companies have specific technologies, developing capabilities
and manufacturing capabilities, enhancing the business basis.
This is the total strength of EBARA, expanding our business in the global marketplace.

EBARA CORPORATION

Domestic :

Haneda District
Fujisawa District
Sodegaura District
Suzuka District

Overseas :

Bangkok Office
Manila Branch
Middle East Branch Office
Cairo Representative Office
Taipei Office
Italy Representative Office
Beijing Office
Ho Chi Minh City Representative Office
Zurich Representative Office

(As of April 1, 2008)

Affiliated companies

Fluid Machinery & Systems Company

Domestic :

EBARA DENSAN LTD.
Ebara Techno-service Co., Ltd.
Ebara Shinwa Ltd.
Ebara Material Co., Ltd.
Ebara Yoshikura Hydro-Tech Co., Ltd.
EBARA HAMADA BLOWER CO., LTD.
Ebara Environmental Technologies Hokkaido Co., Ltd.
Ebara-Byron Jackson, Ltd.
Ebara Refrigeration Equipment & Systems Co., Ltd.
EBARA KIDEN Co., Ltd.
Eco Power Co., Ltd.
Elliott Ebara Turbomachinery Corporation
E-Square Co., Ltd.
Pacific Machinery and Engineering Co., Ltd.

North America and South America :

Ebara Industrias Mecanicas e Comercio Ltda.
Ebara International Corporation
Elliott Company

Europe and Middle East :

Ebara Pumps Europe S.p.A.
Sumoto S.r.l
Ebara Espana Bombas S.A.
Ebara Pump Industries (P.J.S.)

Asia and Oceania :

Ebara Engineering Singapore Pte. Ltd.
Ebara Benguet, Inc.
Yantai Ebara Air Conditioning Equipment Co., Ltd.
Ebara Great Pumps Co., Ltd.
Ebara Elliott Service (Taiwan) Co., Ltd.
Elliott Ebara Singapore Pte. Ltd.
Ebara (Thailand) Limited
P.T.Ebara Indonesia
Ebara Hai Duong Company Ltd.
Ebara Pumps Malaysia Sdn. Bhd.
Ebara-Densan Taiwan Manufacturing Co., Ltd.
Ying Kou Ebara Co., Ltd.
Ebara Machinery (China) Co., Ltd.
Ebara Densan (Kunshan) Mfg. Co., Ltd.
Ebara Boshan Pumps Co., Ltd.
Ebara Pumps Australia Pty. Ltd.
Hyosung-Ebara Co., Ltd.
Kirloskar Ebara Pumps Limited

Environmental Engineering Company

Domestic :

Ebara Engineering Service Co., Ltd.
EBARA INDUSTRIAL CLEANING Co., Ltd.
Aqua Engineering Co., Ltd.
Nissetsu Co., Ltd.
Ebara Environmental Engineering Corporation
Chubu Recycle Co., Ltd.
Clean System Corporation

Asia and Oceania :

Ebara Qingdao Co., Ltd.
Ebara Environmental Engineering (Malaysia) Sdn. Bhd.
P.T.Ebara Prima Indonesia
Ebara Vietnam Corporation
Shanghai Ebara Engineering and Services Co., Ltd.
Qingdao Ebara Rebirth Resource Power Co., Ltd
Hyosung-Ebara Engineering Co., Ltd.

Precision Machinery Company

Domestic :

Ebara Field Tech. Corporation
Ebara Kyushu Co., Ltd.

North America and South America :

Ebara Technologies Incorporated

Europe and Middle East :

Ebara Precision Machinery Europe GmbH

Asia and Oceania :

Ebara Precision Machinery Korea Incorporated
Ebara Precision Machinery Taiwan Incorporated
Shanghai Ebara Precision Machinery Co., Ltd.

Corporate

Domestic :

Ebara Research Co., Ltd.
Ebara Agency Co., Ltd.
Ebara Shohnan Sports Center Inc.
Ebara Meister Co., Ltd.
Ebara Ballard Corporation
ECE Co., Ltd.
IT Engineering Limited

North America and South America :

Ebara America Corporation

EBARA GROUP

Fluid Machinery & Systems Company
Consolidated subsidiaries : 12 domestic and 21 overseas companies
Other companies : 17 domestic and 21 overseas companies

Environmental Engineering Company
Consolidated subsidiaries : 5 domestic and 2 overseas companies
Other companies : 12 domestic and 9 overseas companies

Precision Machinery Company
Consolidated subsidiaries : 2 domestic and 4 overseas companies
Other companies : 2 overseas companies

Corporate
Consolidated subsidiaries : 5 domestic and 1 overseas companies
Other companies : 3 domestic

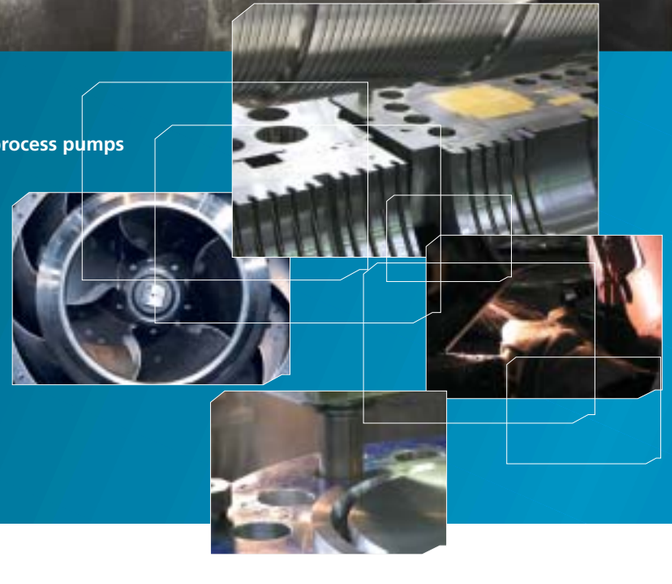
Transporting water, air, and heat

The Fluid Machinery & Systems Company has long provided pumps, fans, compressors, chillers and other machinery that serve as the infrastructure of daily life and industry.
The company is expanding overseas production and sales bases to extend our business from a global perspective, and are greatly contributing to the industrial progress and infrastructural development around the world.

F luid Machinery & Systems
C o m p a n y

Main products

- Large pumps, high-pressure pumps, process pumps
- Large fans, blowers
- Compressors, turbines
- Standard pumps, fans
- Chillers
- Energy system equipment
- Fluid machinery systems engineering
- Other associated equipment



Frontier

Simulation technology

EBARA's evolving *"monozukuri"* (manufacturing) process

Computer performance has been improving 100 times in every 3 years, and 1,000 times in every 10 years, and great changes are occurring in *"monozukuri"* (manufacturing) processes.
The prediction of complex flow conditions using computational fluid dynamics or large-scale structures and vibration analysis of whole pump station constructions are essential technologies to secure performance and reliability of fluid machinery under severe operating conditions. In addition to abundant data, knowledge, and experiences accumulated over the years, EBARA's *"monozukuri"* process has been evolving still further with the numerical simulation technology and numerical optimization technology as its core technologies.

Internal flow visualization of mixed-flow pump

Vibration mode analysis of pump station

Seawater Desalination

EBARA's high-pressure pumps for seawater desalination support water in the 21st century

High-pressure pumps for Reverse Osmosis desalination plant

21st century has been called the "century of water," because the global water shortage will be a serious problem. Seawater desalination is humankind's final solution for the global water shortage problem. EBARA has a world-class delivery record of pumps for evaporation desalination plants, and is tackling the urgent task of enhancing products for reverse osmosis (RO membrane) desalination plants, which is becoming a mainstream in the market. EBARA's technology supports the core of the desalination process, such as a high-pressure pump that presses high-pressure seawater to an RO element, and highly efficient energy recovery systems from concentrated seawater after taking out the fresh water.

High-pressure pump

Topics

Advanced complex technology supported a mega-project

The Wanjiazhai Yellow River Diversion Project in China

"In the Wanjiazhai Yellow River Diversion Project, which was launched to solve the persistent water shortage problem in Shanxi Province in China, five pump stations were built to take the water from the middle of the Yellow River and deliver it through channels over a total distance of 270 km and at an altitude difference of 632 m.
This project is one of the largest water supply projects in the world, and makes high demands in terms of the water-feeding pumps; high-density sand, large capacity, high pressure, and high efficiency.
The project needed highly advanced and complex technologies. To achieve high efficiency and high suction performance, the 3-D Inverse Design Method was applied for the hydro dynamic design. To ensure erosion-resistance while operating in high-density sand water, EBARA reviewed the pump structure design, conducted research and development on durable materials for pump parts such as impellers, and reviewed the construction techniques.
It was an unforgettable moment for all the members when the pumps of the five stations were connected and the water finally went into a dried branch of the Yellow River.
EBARA awarded The Japan Society of Mechanical Engineers (JSME) Medal for New Technology (2006)."

Shinya Hibino,
Custom Pump Division,
Fluid Machinery & Systems Company
(fourth from the right)

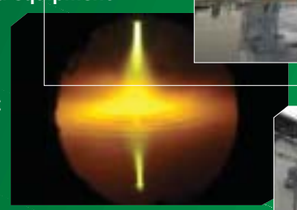
Building a sustainable society

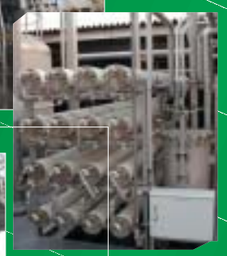
The Environmental Engineering Company sets up a corporate mission of “building a sustainable society”, and conducts global-basis businesses infrastructure facilities associated with environments and energy. The company, on the basis of advanced environment- and energy-related technologies centering on the water treatment technology and incineration and gasification technology, provides total solutions for various types of problems.

Environmental Engineering Company

Main products

- Water treatment and recycling facility and equipment
- Waste treatment and recycling facility and equipment
- Biomass treatment and recycling facility and equipment
- VOC treatment and deodorizing equipment
- Water and incineration ash treatment chemicals and industrial chemicals
- Contaminated soil and groundwater clean up facilities





Frontier

Submerged membrane filtration plant

Filtering system for water purification plant using submerged membrane filter

EBARA's submerged membrane filter can supply good-quality drinking water using water taken from rivers in Japan, which often become cloudy in the rainy season and during typhoons. This system makes effective use of the existing concrete facilities as a filter basin. The system does not require any site acquisition and is effective for reducing construction periods and lifecycle costs. It is suitable for water purification plant renewal for medium- and large-scale urban areas.

Fluidized-bed gasification and ash melting furnace

Economical and environment-friendly melting system

EBARA's fluidized-bed gasification and ash melting furnace, composed of a gasification furnace and swirled melting furnace, is an economical waste treatment system that conducts processes from thermal decomposition to melting using the heat obtained from burning the waste itself.
This eco-friendly system reduces emissions of CO_2 other than that emitted from burning the waste, and generates more power. High-temperature combustion almost completely decomposes dioxins.

Topics

Recycling biomass

The demand for biomass recycling is growing because of requests to reduce CO_2 emissions and escalating fuel prices. EBARA's biomass-related products, which are the culmination of its environmental technologies, are effective in reducing fuel costs and CO_2 emissions, and they help conserve the environment.

Methane Fermentation Facility at KIKUNOTSUYU SHUZO Co., Ltd.

Washing liquor bottles using biogas energy

“The methane fermenting facility at Kikunotsuyu Shuzo in Miyakojima-shi, Okinawa, performs methane fermentation on the distillation waste (15 tons a day) generated in the production process of awamori (distilled liquor), and collects biogas which is equivalent to 400 liters of heavy oil. The biogas is used as a fuel for a steam boiler to wash the liquor bottles. This system reduces the plant's yearly consumption of heavy oil by 80%, and reduces the yearly emission of CO_2 by 300 tons.”

Kazuyuki Nakamura,
Waste Recycling Division,
Water Treatment & Waste Division,
Environmental Engineering Company

Azuma Bio-power

Converting ligneous biomass into electricity

“Each day Azuma Bio-power in Gumma Prefecture collects 400 tons of ligneous biomass composed of cut down branches, thinning trees, and scrap wood, and generates power for 25,000 households.
EBARA's technology for an internal circulation fluidized-bed boiler and its operating know-how makes compatibility between environmental friendliness and cost efficiency possible.”

Atsushi Shimoda,
Project Division,
Environmental Plant Division,
Environmental Engineering Company

Providing manufacturing technology of semiconductors

Semiconductor and FPD industries are of increasing importance as a social infrastructure.
The Precision Machinery Company, with an eye toward the full-fledged arrival of the nanotechnology age, has developed, manufactured, and sold semiconductor manufacturing equipment and various component devices meeting customers' needs.

Precision Machinery Company

Main products

Vacuum equipment
- Dry vacuum pump
- Turbo molecular pump

Semiconductor manufacturing equipment and device
- CMP systems
- Plating systems
- Bevel polishing equipment
- Gas abatement systems
- Ozonized water generator
- Ultra high-concentration clean ozonizer
- Clean pumps

Frontier

Technology for saving resources

EBARA's technologies for saving resources and fighting global warming

In production lines of state-of-the-art electronic devices such as semiconductors, LCDs and photovoltaic cells, EBARA makes continued efforts toward protecting the Earth's environment, and puts the industry's highest grade of environmental conservation technology into use to meet customers' needs.
In the field of dry vacuum pumps, EBARA has released a series of products with a power consumption at rated operation reduced to under 500 W (2,000 L/min class). In the field of emission-gas abatement equipment, EBARA was successful in putting into use a combustion-type emission gas abating device that decomposes high-flow process gas containing PFC gases, which are a global warming gas, and a fluorine-gas-captured emission gas abatement device, which never emits water tainted with hydrofluoric acid.

CMP systems

Planarization technology supporting fine processing of semiconductor wafers

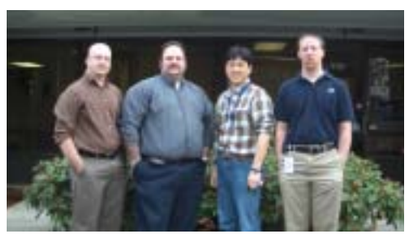
The CMP systems are a planarization tool installed in a clean room, for polishing wafer surfaces chemically and mechanically in the front and back end wafer process of semiconductor manufacturing. This system, built on a concept of dry-in, dry-out processing, is highly regarded by semiconductor device makers for its excellent processing performances, high reliability, and flexible system composition meeting customers' specifications.

To meet the demands for ever-advancing technology of semiconductor manufacturing, EBARA will make continued efforts in developing processes, manufacturing new equipment, and expanding service and support frameworks.

Topics

Semiconductor manufacturing technology that will make for a comfortable life in the future

"The dramatic changes in our daily lives in recent years owe much to the technological innovations in semiconductors, which are installed in many electronic devices.
I was stationed in the U.S.A., and had a challenging opportunity of supporting the best-of-the-industry customers in the world.
EBARA's plating systems are used in important processes of forming fine patterns on semiconductors. To produce semiconductors, which become more and more compact and high-speed every year, it is essential to continue developing manufacturing technologies, including the implementation of finer designs, and therefore problems that we shall overcome occur one after another.
To solve these problems, EBARA takes advantage of its comprehensive technological prowess, conducts a series of examinations and reviews, and works out the best solutions.
Sometimes our opinions conflict with our customers. However, we feel a great sense of accomplishment and joy when we finally solve a problem after presenting our opinions on the basis of our own technological prowess and having a series of tough discussions."

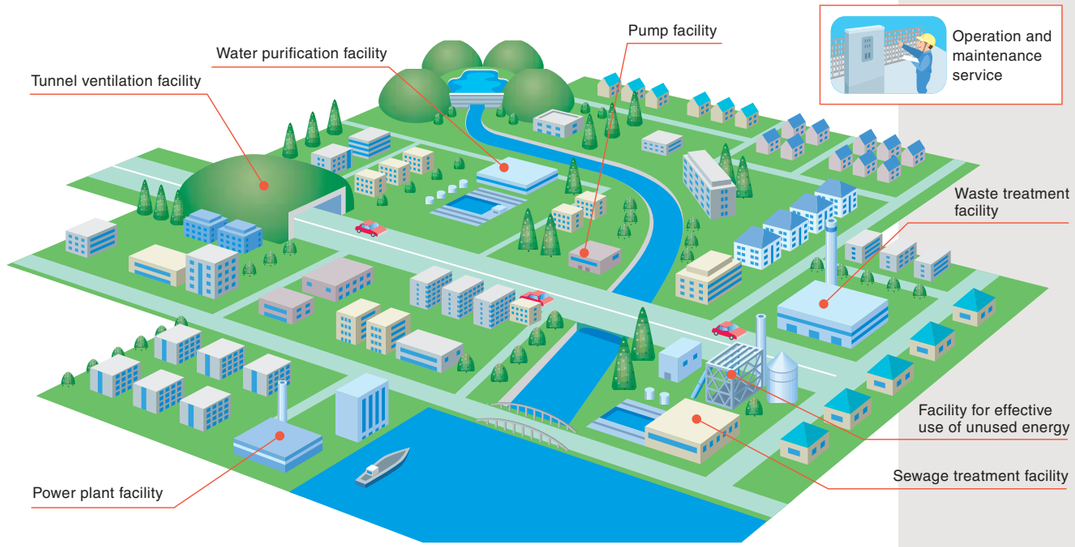


Toshikazu Yajima,
Ebara Technologies Incorporated,
Precision Machinery Company

Supporting Society

EBARA's technologies are found here and there

EBARA's products, technologies, and services support many social scenes in cities, towns and agricultural villages.
A pump prevents floods by draining rainwater to an ocean or a river. Technologies of water treatment and water supply and drainage are indispensable for lives in society. Although they are behind the scenes, and not in everyday view, technologies such as those used in fluidized-bed gasification and ash melting plants for extracting gases from waste, contribute to creating a recycling-based society and to reducing greenhouse gases, and they support the basis of society.



Pump facility

Fluid Machinery & Systems Company

Pumps playing great roles in social infrastructure

Pumps play important roles close to our daily lives including use in water supplies, flooding prevention, and seawater desalination. We are highly regarded as the best pump manufacturer in the business by society and customers with our superior technology and reliability based on our real accomplishments since our foundation. EBARA's origin of "monozukuri" (manufacturing) is pumps, which are essential for social infrastructure such as water supplies, sewage, flooding control and agriculture, and EBARA will keep taking on challenges to create new value and make technological innovation.

Vertical volute pump for the North Chiba Waterworks Project

This pump sends water from the Tone River to the Edo River to supply city water. The water is not only used for city water but is also sent to the Teganuma pond for rehabilitating polluted water.

Vertical mixed-flow pump with variable pitch vane

This pump is used for rainwater and river water control. The flow rate can be controlled by changing the pitch angle of impeller blade.

Drainage pump for Outer Tokyo metropolitan area storm drainage

This is the world's largest drain-water pump facility with a total draining capacity of 200 m^3/s. To reduce construction costs and improve reliability, state-of-the-art technologies are employed.

Horizontal mixed flow pump

This pump is mainly used for drainage and irrigation services. It is exceptionally easy to maintain with a dual upper and lower casing system. By removing the upper casing, internal rotation parts can be easily removed.

Power plant facility

Fluid Machinery & Systems Company

Technologies in a power plant

A variety of EBARA's devices and technologies are used in power plants. Many of EBARA's products and technologies are employed in a number of power plants all over the world, for example, high-pressure boiler feed pumps, large-capacity cooling water pumps, hydro turbines for hydroelectric power plants, and water treatment equipment for nuclear power plant condensate and cooling water systems.

Super-critical pressure boiler feed pump for power plants

This pump is used also as a descaling pump in steel plants, and as an injection pump in the oil industry.

Tunnel ventilation facility

Fluid Machinery & Systems Company

Technology for protecting road tunnels

Inside tunnels, where natural ventilation is difficult, forced ventilation is necessary to avoid the accumulation of soot and dust, carbon dioxide, and other toxic substances contained in exhaust gas. Cylindrical jet fans on the ceiling and large axial fans installed in ventilation towers are used for tunnel ventilation. EBARA's fans are installed in many tunnels all over Japan, not only for tunnel ventilation, but also as an emergency smoke ventilation system in case of fire.

Axial fan for the Tokyo Bay Tunnel ventilation facility

In a long tunnel such as the Tokyo Bay Tunnel, several large fans and ventilation towers are installed to ventilate the whole tunnel.

Waste treatment facility

Environmental Engineering Company

From waste treatment to creation of energy and resources

EBARA's waste treatment technologies are divided into two incineration technologies: one for a stoker furnace and another for a fluidized bed furnace. Because of the scarcity of landfill sites and environmental problems, EBARA has tackled the technologies of recycling, waste reclamation, reduction of ash after incineration, and power generation using waste. EBARA not only contributes to environmental conservation with those technologies, but also contributes to building a sustainable society by using the waste as a source of energy and a new resource.

Fluidized-bed gasification and ash melting plant for Chubu Seisou Kumiai

This facility discomposes waste and melts ash waste using the heat of the waste itself. This environment-friendly facility generates power with a boiler and turbine facility, and reuses all the wastewater from plants.

Fluidized-bed gasification and ash melting plant for Sakata Regional Clean Kumiai

This was the first made-in-Japan fluidized bed gasification furnace for municipal waste. This facility burns flammable gas generated by heat discomposing in gasification furnaces at high temperatures, suppressing the generation of dioxins.

Large stoker incineration and ash melting facility for Adachi Refuse Incineration Plant

This facility generates power using the heat generated by a garbage incinerator, and turns the ash into slag using a plasma-melting furnace with the generated electricity. The slag is used as a subgrade material for roads.

Waste incineration and fluidized-bed gasification power plant for Tokyo Waterfront Recycle Power

This facility gasifies industrial waste and melts ash, such as waste plastic materials and building rubble, and recaptures the heat generated by the incineration of medical waste, and generates power of 23 MW.

Water purification facility and sewage treatment facility

Environmental Engineering Company

Advanced technology that conserves water environments

EBARA delivered the first made-in-Japan high-speed filtration system in 1931, since then we have a long list of systems delivered to facilities as a pioneer in water treatment. Meeting the needs of society, EBARA has provided advanced technologies and products to water purification plants and wastewater treatment plants, taking advantage of its abundant experience in high-grade processing, energy saving, labor-saving, and anticorrosion measures.

Water purification facility

The plants work all over Japan to ensure tap water that people can drink with a sense of security, that is stably supplied, and with a service provided on a sustainable basis.

Ebara Environmental Engineering Corporation

Sewage treatment facility

The company always provides the latest technologies to contribute to recycling and using water resources and using energy at sewage treatment plants all over Japan.

Ebara Environmental Engineering Corporation

Dea Reformer (sludge deaerator facility)

This is EBARA's original technology for efficiently removing bubbles in sludge by using a vacuum. This system improves helps sludge to settle more efficiently and reduces the burden of water processing.

Ebara Environmental Engineering Corporation

Water purification plant in Thang Long, north of Hanoi

This water purification plant with a processing capacity of 50,000 m³ per day was constructed in a joint venture with Taisei Corporation. EBARA also delivered the sewage processing plant and pump facility constructed together with the plant.

Facility for effective use of unused energy

Fluid Machinery & Systems Company Environmental Engineering Company

Preventing global warming and reducing energy costs

EBARA has been developing products and technologies for effective use of energy resources such as biomass energy, which have not been sufficiently used. Taking advantage of digestion gases from sewage treatment plants and energy generated by livestock excretion is effective not only for reducing energy-related costs but also for reducing the emissions of global warming gases.

Micro gas turbine cogeneration package for digestion gas application

The system has a high total efficiency of 75% or more with power generation using the digestion gases produced by the sludge-digesting process in a sewage treatment plant and effective usage of the generated heat for heating the digestion bath at the same time.

Operation & Maintenance business

Environmental Engineering Company

Operation and maintenance to draw out the best performances

Even superior technologies and state-of-the-art facilities may not sufficiently deliver performances without the correct operational and maintenance practices.
EBARA, with accumulated total technologies spanning fields from engineering and operation management to maintenance, enables optimized and low-cost operations of facilities and lower lifecycle costs. With the total business capability of the Group, EBARA is also working toward a collective commission of operations to a private company regarding water supplies and sewage systems.

Maintenance and management of facilities

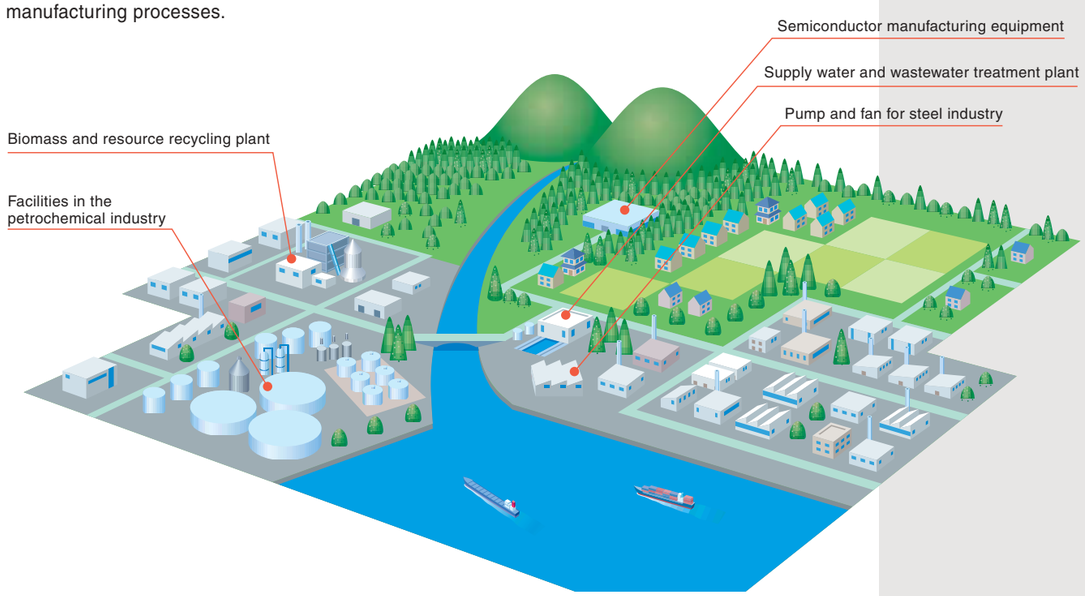
Taking advantage of its knowledge and technological capabilities as a plant maker, the company provides rapid and optimal services to control management offices all over Japan.

Ebara Engineering Service Co., Ltd.

Supporting industries

EBARA's technologies are found here and there

EBARA's products, technologies, and services support every industry: Turbines and compressors are used for the petrochemical industry, pumps and water treatment equipment are used for various fields including food manufacturing and paper manufacturing, and vacuum technology and gas emission technology are indispensable for semiconductor manufacturing processes.



Facilities in the petrochemical industry

Fluid Machinery & Systems Company

Fluid machinery working in petrochemical plants all over the world

Fluid machinery, such as high-performance compressors, turbines, and pumps, are essential products for oil refineries and petrochemical plants. Compressors, in particular, are called “heart of the plant” and high reliability is required in both performances and functionalities. EBARA has supplied numerous compressors from early in its history, as seen in an epoch-making large gas turbine driven compressor for LNG (liquid natural gas) plant in 1976 which was the world's largest compressor at that time. EBARA also has many delivery records of cryogenic pumps which are used for processing LNG with an ultra-low temperature of -162 degrees centigrade.

Seawater cooling pump

Pumps with low cost, high quality and short lead time are achieved using two-phase stainless steel that has excellent performance against pitting corrosion and stress corrosion and steel welded casing. This pump has many delivery records.

Cryogenic pump

EBARA's cryogenic pumps are actively working in many LNG plants, tankers, and bases all over the world.

Large horizontal split type compressor

This type of compressor has a world-class high efficiency. In addition to the horizontal split type, barrel-type compressors can be used for high-pressure or hydrogen-rich gas operation.

Elliott Group

Multistage steam turbine

This is a multistage steam turbine used for driving compressors. EBARA has delivered more than 350 units all over the world since 1972, the first shipment of the product.

Elliott Group

Semiconductor manufacturing equipment

Precision Machinery Company

Leading-edge semiconductor manufacturing technology

Manufacturing semiconductors involves various processes. EBARA develops and manufactures various types of semiconductor manufacturing equipment required for major manufacturing processes, such as a process of evenly polishing the surface of a wafer, which is a material for a semiconductor; a process for removing and cleaning defects on the edges of wafers; and a process for plating the surface of wafers and forming an electric circuit. And, we devote our energies to developing advanced technologies for next-generation equipment.

CMP systems

This is a dry-in, dry-out basis advanced system that has the function of polishing the rough surface of wafers into a flat surface, as well as a cleaning process.

Bevel polishing equipment

This equipment polishes to remove any defects on the wafer bevel and notch to improve the production yield.

Plating systems

Plating systems are installed in a clean room and forms fine patterns such as bumps on a semiconductor wafer.
EBARA employs a vertical plating system to achieve high-quality forming of bumps and wiring plates.

High vacuum and emission gas abatement required for manufacturing processes of electronic devices

Dry vacuum pumps and turbo molecular pumps are used to create a high vacuum required for manufacturing semiconductors, LCD panels, and photovoltaic cells. Meanwhile, the various gases used in manufacturing processes include many types of gases that directly affect global warming, such as PFCs gas that is said to have a global warming factor 10,000 times as high as that of carbon dioxide. The gas-emission abating technology works to decompose and treat those gases securely and efficiently. EBARA's technology works to accomplish the clean environment demanded by customers.

Fluorine-gas-captured emission gas abatement equipment (model FDS series)

This fluorine-gas-captured emission gas abatement equipment decomposes PFCs gas, which is used in the etching process, and captures the fluorine components.

Dry vacuum pump (model ESA series)

This roots-type of dry vacuum pump is designed to exhaust air promptly from a large vacuum chamber such as an LCD panel manufacturing equipment or photovoltaic cell manufacturing equipment.

Dry vacuum pump (model EST series)

This is a screw-type of dry vacuum pump developed for a CVD process that produces process by-products (solid matter).

Combustion exhaust gas abatement equipment ($G^{\S}$ series)

This new type of combustion exhaust-gas abatement equipment easily decomposes various process gases, such as PFCs gas, one of the global warming gases.

Supply water and wastewater systems

Environmental Engineering Company

Contributing to supply water and wastewater systems of every industry with state-of-the-art technology

To supply water of the required quality, to process wastewater, and to recycle water, EBARA meets various needs in the industrial field. To satisfy the quality of water required for industries and plants, the company has developed various processing technologies for water supply using preprocessing equipment, water softening equipment, and pure water equipment. In addition, it has developed various wastewater processing and water recycling technologies in accordance with water qualities and target substances, using a chemical oxidation process with ozone, an adsorption with activated carbon, and filtering. EBARA contributes to the industrial field by providing the best water processing systems that meet the customers' needs.

Erectrodeionization (GDI)

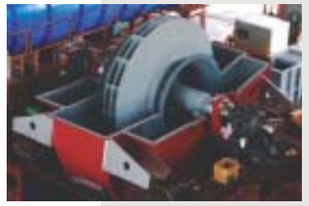
This is EBARA's original electric desalinating system using an ion exchanger by radiation-induced graft polymerziration. This is used to generate pure water and ultrapure water in combination with a reverse osmosis (RO) membrane.

Pump and fan for steel industry

Fluid Machinery & Systems Company

Pumps and fans influence steel quality

Many pumps and fans are used in the steel industry. EBARA has delivered many gas circulation fans used to extinguish red-hot coke, and high-pressure pumps called descaling pumps used to clear impurities on sheet steel surfaces in manufacturing processes. EBARA's pumps and fans, which have high efficiency to satisfy the energy-consuming steel industry requirements and advanced performances to secure high-quality production, are highly regarded in the global steel industry.



Gas recirculation fan for coke dry quenching facility

Long-term stable operation is essential for these fans. In addition to high efficiency, anti-abrasion performance is required for operations in a coke-particle-rich environment.

Biomass and resource recycling facility

Environmental Engineering Company

Using waste and biomass as energy and raw materials

From the viewpoints of escalating fossil fuel prices and reducing emissions of carbon dioxide, using energy from biomass and various types of waste discarded from industries has become a focus of attention. EBARA's system efficiently recovers heat with its original technology ICFB (internal circulation fluidized-bed boiler) to generate power. In addition, by applying gasification technology for general waste, facilities that retrieve industrial material and ammonia from waste plastic are in operation.

Hita Power Plant, Hita Wood Power Co., Ltd.

Using ligneous biomass as a material, ICFB recovers heat. This commercial biomass power plant generates 12 MW of power with a steam turbine.

Advanced utilization system for distillation waste of awamori (distilled liquor), KIKUNOTSUYU SHUZO Co., Ltd

The methane-fermentation system installed at Kikunotsuyu Shuzo collects biogas from distillation waste of awamori (distilled liquor), and the biogas is used as a source of heat used in a liquor bottling plant.

Pressurized two-stage gasification system

EBARA and Ube Industries, Ltd. have jointly developed a chemical recycling system that collects ammonia from waste plastic by applying waste gasification technology.

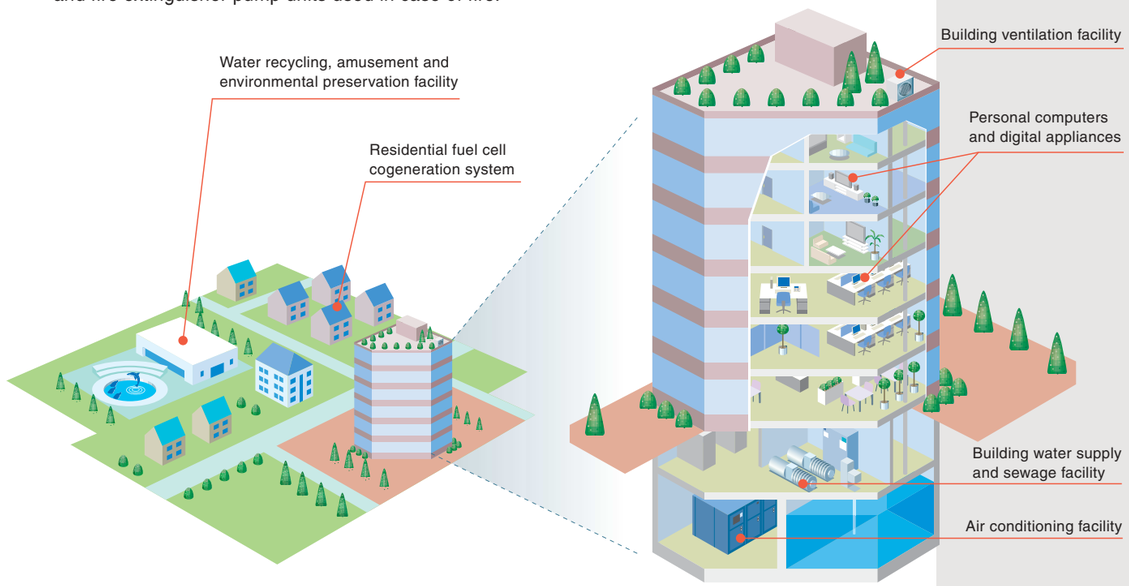
Nakoso Plant Biomass Boiler, Nippon Paper Group, Inc.

This facility has a processing volume of 514 t/d, and generation capacity of 15 MW. The facility recovers heat using mainly wood chips from construction waste, and generates power with a turbine for energy for use in the plant.

Supporting people’s lives

EBARA's technologies are found here and there

EBARA's products, technologies, and services support people's lives in a variety of scenes in offices and households: chillers for air conditioning systems in large facilities such as office buildings, public buildings, or shopping malls; ventilation fans for changing the air in closed, windowless spaces such as high-rise buildings or underground shopping arcades; pump units that send tap water to the top floor of high-rise buildings such as office buildings or condominiums; and fire extinguisher pump units used in case of fire.



Building water supply and sewage facility

Fluid Machinery & Systems Company

Pumps working in familiar places

Pumps are used for various purposes in buildings and condominiums. Even though many people do not have much opportunity to see these pumps, which are used for tap water supplies, emergency fire extinguishers, sewage and rain water discharge, and wells, EBARA's pumps support people's daily lives in familiar places.

Water supply unit for high-rise buildings

This pump unit has a high capability to supply water up to a height of 60 stories (250m). It has an enhanced backup function to prevent any water outage in the event of a failure.

Direct-water supply booster pump

This pump is connected directly with a city water pipe and provides additional pressure to supply tap water with adequate pressure. This pump eliminates the need for a water receiving tank and enables a hygienic water supply while saving space and energy.

Stainless steel vertical multistage pump

High-efficiency and high-performance pumps with stainless-steel hydro parts (impellers, middle casings, etc.) designed by EBARA's original design and analysis method.

Fire pump unit

This pump is used for fireplugs and sprinkler facilities. It is certified by the Fire Equipment and Safety Center of Japan.

Residential fuel cell cogeneration system

Corporate

Energy supply system working in houses

The residential fuel cell cogeneration system, which is receiving attention as a distributed energy system that emits lower amounts of greenhouse gases, uses both electric power and thermal energy to achieve a high grade of energy efficiency. This system generates hot water efficiently using heat generated when generating power, achieving high energy efficiency, and significantly suppresses the emission of carbon dioxide. In addition, the system contributes to the reduction of costs for heat and electricity in houses. EBARA is making continuous efforts for the widespread use of this fuel cell system.

Residential 1 kW-class fuel cell (PEFC) system

This cogeneration system generates electricity with natural gas and kerosene, and supplies hot water using the heat generated when generating power.

Ebara Ballard Corporation

Building ventilation facility

Fluid Machinery & Systems Company

Breathing technology for buildings and underground shopping arcades

Adequately air conditioned buildings or underground shopping arcades are comfortable, but at the same time they are closed spaces. In facilities where natural ventilation is difficult, it is essential to have forced ventilation systems using fans. External air taken by fans is fed to every place in the facility through air supply ducts, and internal air collected through exhaust air ducts is exhausted by fans. In the same way as a human breathes, so a facility breathes with EBARA's fans.

Single-suction fan "Multi-Ace" type

This highly reliable and durable fan is used for building ventilation.

Air conditioning facility

Fluid Machinery & Systems Company

Supporting technology for air conditioning in cities

In large commercial facilities like office buildings or shopping malls, refrigeration equipment such as chillers or water chillers/heaters is used for air conditioning. EBARA's refrigeration equipment can be applied in a wide variety of applications from general air conditioning to industrial use, especially in semiconductor manufacturing plants. Corresponding to the increasing awareness of environmental problems in society, such as preservation of the ozone layer and suppressing global warming, EBARA devotes its energies to developing high-efficiency and energy-saving products, which can contribute to environmental load reduction, and gives support for creating a comfortable environment.

Centrifugal Chiller

It is almost 80 years since EBARA delivered the first made-in-Japan centrifugal chiller. Taking advantage of its delivery records and know-how, EBARA develops and provides ultra-energy-saving products and inverters.

Ebara Refrigeration Equipment & Systems Co., Ltd.

Screw modular chiller

This compact and easily-installable chiller series is suitable for use in renovating buildings. Highly efficient operation is achieved by number control of operating units and inverter control.

Ebara Refrigeration Equipment & Systems Co., Ltd.

Absorption-water heater chiller

This unit is applicable to both cooling and heating, and can be used for air conditioning through the year. In addition, this product has wide variety of fuel types, applications and places where it can be installed.

Ebara Refrigeration Equipment & Systems Co., Ltd.

Steam absorption chiller

EBARA developed the world-class steam consumption rate absorption chiller. This chiller is used in combination with boilers in hospitals and manufacturing plants. This chiller is also suitable for a wide range of uses such as for large-scale facilities of regional cooling and heating systems.

Ebara Refrigeration Equipment & Systems Co., Ltd.

Water recycling, amusement and environmental conservation facility

Environmental Engineering Company

Technologies to create water familiar to daily life

EBARA's water processing technology helps people to relax in their daily lives. The company provides optimum systems for aquariums and amusement parks, taking advantage of its abundant track records of achievement and technologies. In complex buildings and hotels, on the other hand, the systems process drain water from kitchens and various types of sewage, and uses the processed water and rainwater in a "recycling system" for recycled water supply. EBARA supports the use and recycling system of water, taking advantage of its abundant experiences and technologies in water processing, such as advanced processing techniques of sewage and wastewater.

FM filter, Hydraulic floating media filter

Polyethylene floating filter material has superior cleaning efficiency and durability. The unit doesn't need incidental equipment for cleaning the filter material. It is suitable for reuse of rainwater and treatment of recycled water.

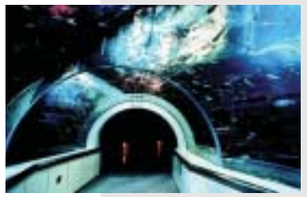
Ultraviolet sterilization equipment

Because this equipment can disinfect and sterilize water in a short time without using chemicals, it is used when disinfecting water with chemicals is inappropriate, such as water for aquaculture fish, and other wide range of uses such as playing parks, and water for drinking purposes.

Ebara Engineering Service Co., Ltd.

BIOPACK, Biological aerated filter

Biological waste treatment and filtering is performed at one processing site. This system has a wide range of uses, from organic wastewater processes and advanced sewage processing, to clarification of water in ponds and rivers.



Aquarium equipment and facility

This equipment developed and designed on the basis of various technologies and experience about water processing, as well as aquatic ecology is employed in aquariums all over Japan and is highly regarded.

Personal computers and digital appliances

Precision Machinery Company

Challenging nanotechnology

Semiconductors are the brains of electronic devices so to speak, and are indispensable in people's lives today. It is difficult to find a device that does not use any semiconductors. EBARA's technologies are employed also in manufacturing semiconductors. It is nessesary for manufacturing semiconductors to develop leading-edge nanotechnologies and to accomplish a clean environment. EBARA help to create people's abundant lifestyles by supporting the semiconductor industry.

CMP systems

This is a dry-in, dry-out basis of advanced system that has the function of polishing the rough surface of wafers into a flat surface, as well as cleaning process.

Dry resin exhaust-gas abatement equipment (GT series)

This is a dry resin exhaust-gas processing equipment that makes harmless the various process gases used in the semiconductor manufacturing processes, by chemically decomposing them or physically absorbing them in accordance with the process gas types.

Dry vacuum pump (model VOS series)

This is an ultra-compact, lightweight, and on-board dry vacuum pump, designed for use in processing equipment or for using narrow spaces efficiently.

Dry vacuum pump (model ESR series)

This roots-type dry vacuum pump is equipped with a variable pumping speed function, communication function and other functions by standard, and achieves energy-saving, reduces carbon footprints, and downsizing of products.

Creating original technologies as an R&D-oriented company

In EBARA, Corporate plays the role of planning management strategies, optimally allocating management resources, and fulfilling CSR functions, among other things. Some of the main functions of corporate are to enhance existing businesses in coordination with Ebara Research Co., Ltd., to make and promote R&D plans for starting new businesses, and to create and foster new businesses.
EBARA is grappling with the fuel cell business and life science business as incubating businesses, which come next to the existing three in-house companies.

Fuel cell business

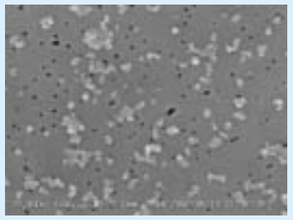
Environment-friendly clean energy

The fuel cell business division is developing a residential fuel cell cogeneration system in coordination with Ebara Ballard Corporation.
Ebara Ballard Corporation, under a contract of stack development with Ballard Power Systems, succeeded in developing a stack that achieves durability lasting for more than 40,000 hours, high reliability, reduction in size and weight, and reduction of costs.
From this time forward, Ebara Ballard Corporation will make continuous efforts toward commercial use of the household fuel cell by manufacturing cogeneration stacks on its own, taking advantage of its state-of-the-art manufacturing technology, under a licensing contract with Ballard Power Systems.

Stack for residential fuel cell cogeneration, model MK1030 V3 (40,000-hour durability)

Life science business

EBARA is developing technologies and conducting business in the field of life science, which has a great potential for business development toward the future, and is expecting significant contribution to society.
Currently, EBARA is concentrating most of its energies on the drug delivery system (DDS), especially making nanoparticles of water-insoluble medicines.
By making medicine into nanoparticles, active substances that were not available as medicines can be utilized. In addition, it can reduce the dose significantly to lessen side effects and pain for patients.
EBARA is developing more than one method for applying the processes to various types of drugs.



Medicine made into nanoparticles (SEM picture)

Research and development

EBARA considers research and development as one of the most important issues in management.
The mid-term and long-term management plans state promotion of research and development, meeting customers' needs, improvement of research and development efficiency (contribution of investment on research and development to profits) and reviewing its management of intellectual properties.
In existing business fields, EBARA will promote research and development to increase added values of products, as well as research and development related to cost reductions and manufacturing technologies, toward improving its competitiveness and profitability in each business field.
In new business fields, on the other hand, EBARA's research and development themes will focus on a continuation of existing business fields, and fields that it can expect to commercialize by taking advantage of its existing fundamental technologies.

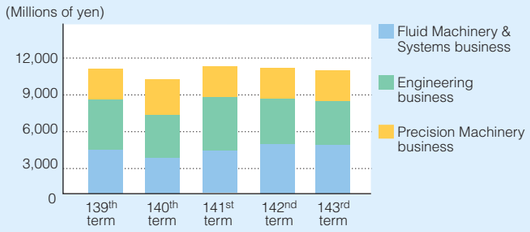
Research and development framework

For promoting the existing businesses, each company will conduct research and development on their own initiative from the viewpoints of developing new products, improving performance and efficiency of existing products, adding higher values, and reducing lifecycle costs and environmental burdens.
On the other hand, with regard to expanding business to new fields related to the existing fields and commercialization or releasing of new products on the market, research and development will be conducted through the initiatives of Ebara Research Co., Ltd, in cooperation with three companies.
Furthermore, Ebara Research Co., Ltd. primarily conducts a search for technology seeds thinking in the long term, basic research with an eye to commercialization and contribution to business, and maintaining or growth in sophistication of fundamental technologies.

Change of research and development expenditure

Research and development costs will be allocated properly to the three main business fields and strategic businesses as required.
Implementation of business themes in each company will be administrated on a company-by-company basis, and a company-wide committee will administrate implementation of company-wide business themes.

Research and development expenditure



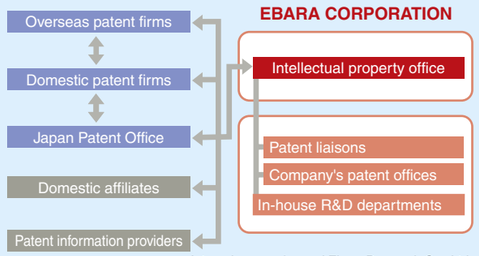
Our Strategy for Protecting Intellectual Property Rights (IP)

The origin of EBARA was closely associated with product development based on two inventions, including Japanese Patent No. 21092.
Issei HATAKEYAMA, founder of EBARA, had served as a chairman of the Japan Institute of Invention and Innovation (JIII) for 16 years since 1949.
He is famous for his devotion and contribution to helping inventors who were seldom rewarded, by recommending the inventors for a decoration and by constructing a building for JIII using his own funds.
We have inherited the spirit of the founder and have adopted the IP strategy as one of our basic corporate strategies.

IT-assisted Intellectual Property Activities

We at EBARA have streamlined our IP activities with the deployment of information technology (IT). IT facilitates synchronous collaboration within the organization—among the Intellectual Property Department, the Patent Departments and the Patent Liaisons, who serve as patent counselors at each Technology Division through formal and informal communications and interactions. The Intellectual Property Department has functioned as part of the Corporate Division to manage all of the EBARA Group's IP, while the Patent Departments have been established at each of the internal companies and at Ebara Research Co., Ltd.

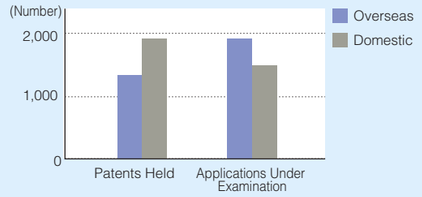
Intellectual Property Workflow



Our current approach for protecting and using IP

EBARA's rich history as an innovator has resulted in more than 1,500 Japanese patents and 2,000 patents overseas, as well as 800 and 700 trademark rights in Japan and overseas respectively. EBARA uses IP not only for securing a competitive advantage in the market, but also for licensing and various other purposes.

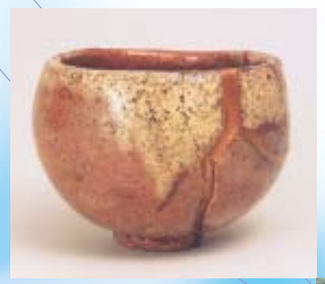
Number of Patents Held and Applications under Examination



To connect people and society, and live together

EBARA contributes to people's lives, the progress of society,
and improvement of the Earth's environment through its businesses.
At the same time, as a member of society, EBARA contributes to people, society,
and the Earth's environment by promoting interaction with local communities,
by fostering cultures, sports activities, by promoting technological advance activities
and environmental conservation activities.

Furtherance of arts and technologies



Akaraku teacup "Seppo," by Honami-Koetsu, National Important cultural property, Collection of the Hatakeyama Memorial Museum of Fine Art

Hatakeyama Memorial Museum of Fine Art

The Hatakeyama Memorial Museum of Fine Art opened in October 1964. Its collections, nearly 1,300 pieces of tea sets, pieces of calligraphy, china, Japan ware, and Noh play costumes including Japan's designated 6 national treasures and 32 national important cultural properties are displayed.

Technical seminar
by the EHMF (Bangkok)

EBARA Hatakeyama Memorial Fund (EHMF)

The EHMF was established in 1989 to promote mutual understanding and friendship with mainly Southeast Asian countries. Since it was established, grass-roots international aid activities have continued with regard to technical support, suitable technical development, and scholarship.

Environmental preservation

Thinning cypress trees and forest exploration by the EBARA GREEN FUND

EBARA GREEN FUND

To study the prevention of global warming and the preciousness of nature, the foundation conducts greening activities in Japan and overseas, and activities of preserving tree-planting forests and back hills.

Exhibition of paintings
(Ginza Art Hall)

The EBARA Group Worldwide Kid's Environment Paint Exhibition

The exhibition started in 1998 to understand the beauty and preciousness of nature by drawing pictures under the theme of nature. Paintings by children of the EBARA Group's employees and their friends all over the world are exhibited.

Sports

Basketball coaching

Basketball coaching

The "Ebara Vickies" teaches the basics of basketball as a special guest instructor, not only in the local Ohta area but all over Japan, when they visit for away matches.

"TENNIS DAY" workshop

Tennis school
(Ebara Shonan Sports Center)

Using fully-equipped facilities the school devotes its energies to fostering junior players so that they can play on the global stage in the future.
On September 23, which is "TENNIS DAY", it holds a free tennis workshop for beginners every year.

Social welfare

Collecting used clothing

Recycling used clothing

Used and unnecessary clothing are collected from employees and sent to support regions suffering from poverty and refugee camps, through a volunteer organization "Wakachiai Project" (the Japanese word "wakachiai" means sharing).

Supporting disaster recovery

When an extensive natural disaster occurs, EBARA collects donations from employees and supports recovery from the disaster through organizations such as the Japan Red Cross Society.

Communication with local community

Factory tour

Communication with people in the local area

EBARA, supporting school education aid activities planned by Hatakeyama Foundation, accepts children of primary schools in Ohta-ku, Tokyo and Fujisawa City, Kanagawa Prefecture for factory tours. The tour lets them know the relation between EBARA's products and their lives.

Cleaning and greening of local areas

Offices of the EBARA Group all over Japan conduct cleaning and greening of areas around the offices on the "World Environment Day" and "Environment Month."

Employees' activities

The EBARA Group holds many club activities, sports days and recreational meetings such as marathons and tennis days to help promote friendship among employees.

EBARA Snow Festival

*See the latest issue of the CSR Report for details.