## Our policy

### At Showa Furyoku, we value individual employees' growth and the welfare of their families


Takeo Kase, founder

**A company is its people. No business will grow without securing the proper personnel.**

This is a quote from Konosuke Matsushita, the founder of Panasonic. Since Showa Furyoku was established in 1963, our founder Takeo Kase held these words to the utmost importance in running and growing the company; In fact, he watched and talked to each employee and encouraged them to grow as if they were his own children. Moreover, he always kept in mind to maintain a comfortable work environment to make his employees' work easy, because a company is also its employees' living space.
Together with a great number of personnel, the most valuable assets that Showa Furyoku has gained since its founding up until now, the company's future steps will create new assets, which are brought about by the growth of young employees.

### Bringing a big breath of fresh air from our factory in Katsushika

Our planet has two fluids. One is water, and the other is gas. Through human technology, pumps move water, and blowers move gas.
Since the company's founding, the founder Takeo Kase, who consistently broadened his horizons to the industrial society, responded to diverse needs by offering high-quality products to thereby make his company serve a beneficial role in society.
As a manufacturer specializing in fans, turbo blowers, and multi-stage blowers, the company developed a long track record by delivering high value-added products using our unique technologies. We are proud to see our products adopted and used at various plants both in Japan and around the world.
With **the mentality to take on new challenges** with which we tackle new products, **our development capabilities** backed up by our experience, and **our proven engineering ability** that enables advanced impeller production, as well as **the employee solidarity** that drives these three elements, we will continue to bring a big breath of fresh air from our factory in Katsushika.
Our mission is to protect our beautiful azure planet and people's lives through Showa Furyoku's blowers.

## The Showa Furyoku spirit that has continued since our founding

**Showa Furyoku' s mottos**

"Do everything you can in all sincerity"

"Take positive action"

"Work together in the spirit of cooperation"

### Transforming sincerity into products

In order to embody our company mottos, we actively take on challenges in new fields.
By continuously producing low-cost, high-quality products while pursuing efficient business, we strive to realize stable company management and community development. In other words, we at Showa Furyoku are determined to try harder than ever to develop technologies and products useful to society.

**Showa Furyoku Kikai Co., Ltd.**
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# Create the wind

## Creating the wind that runs social infrastructure

Corporate profile

# Create the wind

## Creating the wind that runs social infrastructure

Showa Furyoku Kikai Co., Ltd. is a manufacturer specialized in fans and blowers and supports all plants with its custom blowers.
Our 100% built-to-order blowers, which draw on our unique technologies and years of experience, are received for their high reliability in practical operation and are employed in various plants in countries around the world.

**Showa Furyoku Kikai's four focuses**

Production structure

### 100% built-to-order manufacturing

Showa Furyoku develops, designs, and manufactures high value-added blowers under its own techniques. Our 100% built-to-order manufacturing allows us to meet every single user requirement.

Delivery achievements

### Top-class market share in Japan

Our products, based on our unique technologies and years of experience, are highly valued in practical operations and are employed in Japan's space industry and various plants in countries around the world.

Global

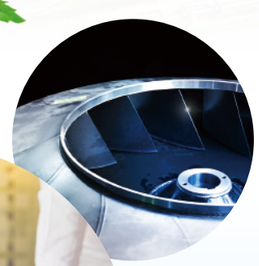
### An engineering ability recognized around the world

We export products and also dispatch supervisors to give technical guidance to plants in the West, in Asia, and other countries around the world.

After-sales service

### Reliable maintenance

Showa Furyoku, which has established an integrated process from manufacturing to maintenance, can offer on-site highly reliable maintenance work as well.



## Taking on new challenges, with aspirations to reach its 100th anniversary as a company

Since its founding as a manufacturer in fans and blowers in 1963, Showa Furyoku has worked diligently to build a total supply chain covering everything from design and manufacturing to after-sales service in order to offer high-quality, safe products and services while making full use of our advanced technologies and know-how acquired over time.
Many of the products we make each one carefully oneself. As a result, it is a constant struggle through trial and error.
Every department keeps close contact with other departments and proceeds with work at a distance close enough to see each other's faces. This is a manufacturing environment only possible for a middle-sized manufacturer where employees help and support each another as colleagues.
Outside of work, too, through active employee interactions such as company trips and baseball team activities, we cherish the family atmosphere has continued from the founder's generation. Under the philosophy "a company is its people" that our founder instilled in the company, we aim to constantly keep taking on new challenges and reach our 100th anniversary as a company so that our employees may happily contribute to society.

代表取締役 齋藤 茂 CEO Shigeru Saito

# An integrated, in-house process from design and manufacturing to delivery

## Custom designs and production tailored to individual facilities enable us to meet customer needs.

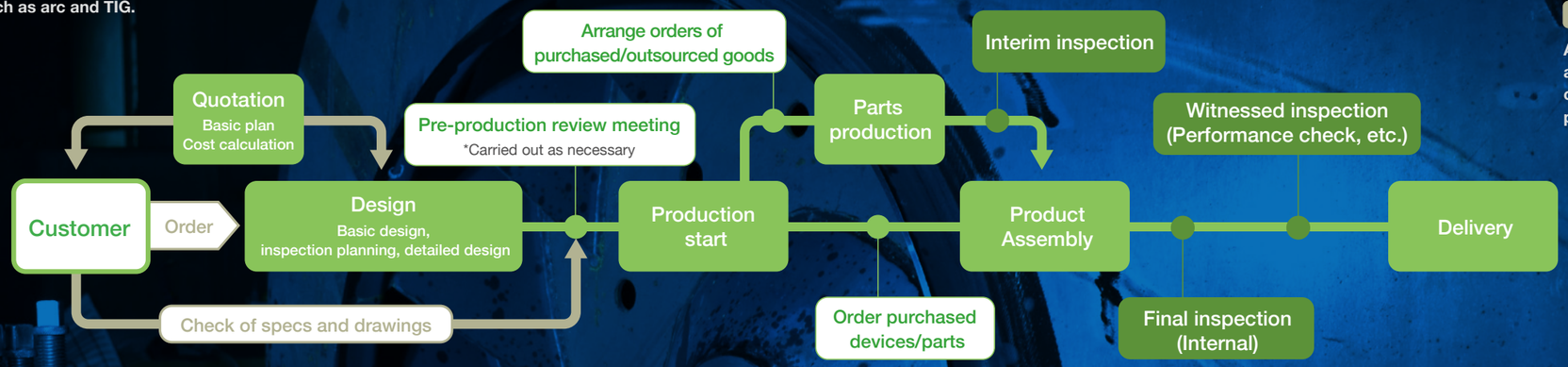
Many blowers in the world are standardized and used for general purposes, but there are many that consume unnecessary energy or are not suitable for usage conditions because of their general purpose. Showa Furyoku manufactures blowers used in thermal power plants, chemical, petroleum and steel manufacturing plants, sludge incineration facilities at sewage treatment plants, waste incineration facilities, etc. completely on a built-to-order basisaccording to each facility's requirements such as the application, purpose, and the type of gas and intake or exhaust etc.

### Plate working

The manufacturing of impellers and casings uses laser machines to cut a shape from material, benders to form a bend, and welding processes such as arc and TIG.

### Document handling support

Showa Furyoku, proven in supporting a broad range of specifications from public project facilities for waste incineration and sewerage to private sector plants for petroleum, steel, and power generation, can flexibly adapt to those industries' required paperwork, in which the company is well-versed.




### Interim inspection

Before assembly, parts are inspected to check for problems in appearance and dimensions. Impellers dynamic balance adjustment.

### Final inspection

After assembly, we conduct autonomous factory inspections that check appearance, dimensions, performance, operation verification, etc.

### Witnessed inspection

Customers attend our inspections to see with their own eyes that there are no problems in performance and operation.

### Design

Our fully custom designs (built-to-order) enable us to meet customer needs. Designs are optimized using FEM (structural analysis)/CFD (fluid analysis).

### Machining

Products are precisely machined via lathing, milling, and drilling. We also support other diverse types of machining using machining centers.

### Assembly

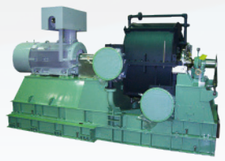
We handle blasting, coating, parts assembly, centering, etc.

### Shipment

Products are shipped to plants or port warehouses after going through pre-shipment final checks, touch-ups, packaging, etc.

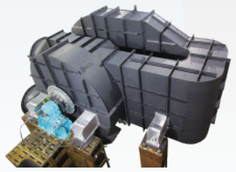
## High-quality products meeting increasingly advanced and diversified user needs

Our 100% built-to-order blowers based on our unique technologies are highly reliable in practical operations and are employed in various plants in countries around the world.



### Gas-tight blowers & fans

These are our specialty. Making the most of our extensive experience and technologies, we choose the blower configuration and shaft seal structure that best suit your use and the gas handled.



### High-temperature fans

We choose the fan configuration and material that best suit your use and operating temperature. Key areas are designed with adequate consideration to contraction and strength in relation to changes in temperature.

### Multi-stage turbo blowers

High pressures are enabled with the use of multiple impellers and machined casings. We choose the optimal design according to the air volume, pressure, etc.

### Single-stage turbo blowers

Suitable for air at low volume and high pressure. These are highly efficient and can be used over a wide range and at high speeds. The impellers we have delivered include those capable of up to 240 m/s in circumferential velocity.

## Showa Furyoku's commitment to detail to meet customers' own commitment

Showa Furyoku's mission is to ensure the stable operation of all plants with blowers that satisfy all conditions and have excellent durability and stability.
We respond to the needs of our customers with our many achievements and skilled craftsmanship.

### High durability under harsh conditions

We have the edge in heavy-duty blowers that endure a temperature of 1000°C or more and high-pressure air at thermal power plants, incinerators, special plants, etc. Impellers in particular, which are the heart of blowers rotating at high speed, can be put under heavy loads by centrifugal force. The technologies gained over the years since the company's founding help us manufacture blowers that operate stably and reliably under harsh conditions. We deliver highly durable products from the perspective of stable use for decades to come.

### Stable 24-hour, 365-day operation

Blowers, which are machines that carry manufacturing or processing gases just like pumps carry water, are indispensable in manufacturing. Not only at power plants and incineration facilities, but also at production plants, we are thoroughly committed to manufacturing highly reliable products so that the plant will not stop operating 24 hours a day, 365 days a year. We also offer maintenance services. Every few years, our engineers are dispatched on-site to perform quick and precise maintenance.

### In-house impeller manufacturing through craftsmanship

Impellers, which are the hearts of blowers, are manufactured completely in-house. Each piece is welded by in-house engineers. Finely detailed artisanal jobs responding to client requests in units of millimeters are Showa Furyoku's forte. Welded pieces are inspected for weight balance using a tester. To adjust large impellers, which can become severely out of right-left balance with an error of just 0.2 grams, our engineers grind them by hand. Years of experience support the high durability and stable operation of blowers.

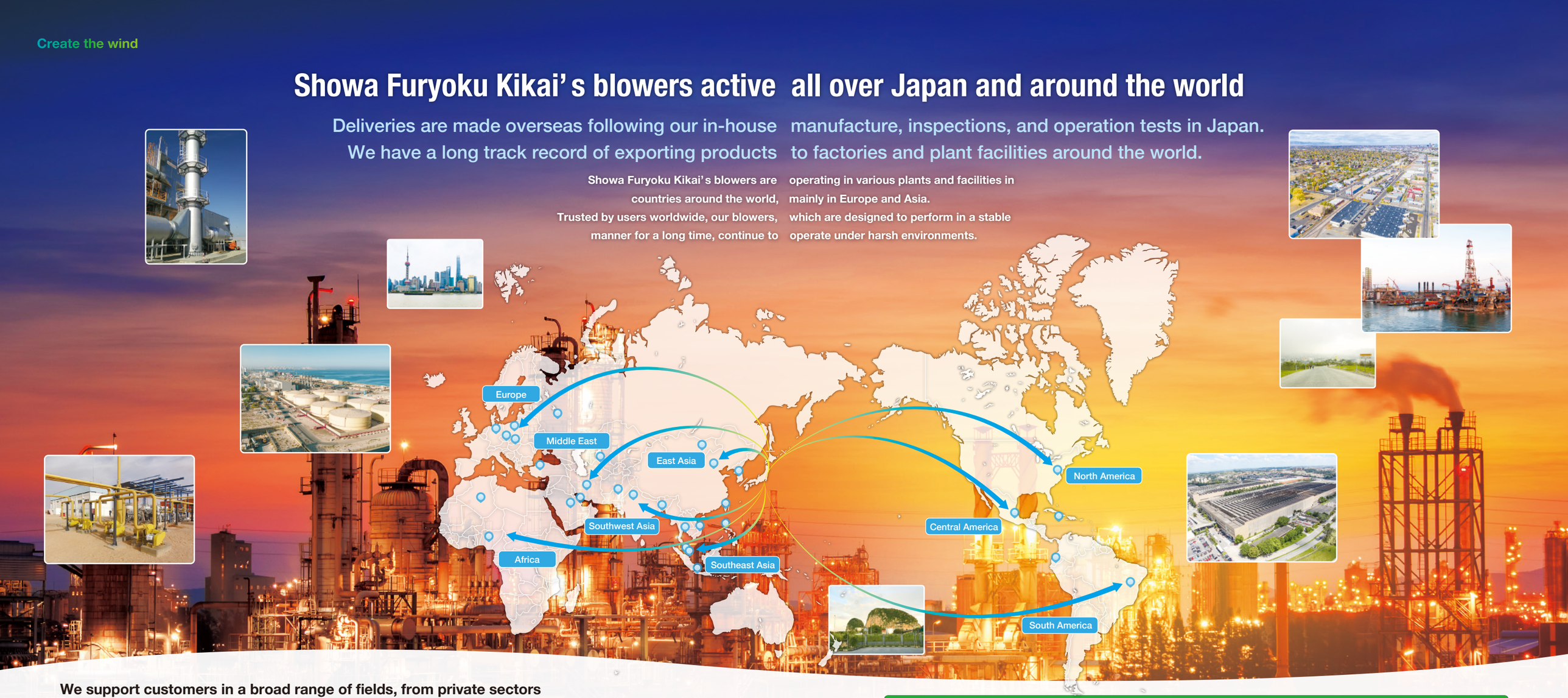
### From air to special gases

How air is routed, suction, and discharged varies widely depending on the plant structure. Showa Furyoku begins designing only after carefully listening to customer needs. Designs are made with full consideration of the scale, structure, and other individual characteristics of the site. In the case of special gases besides air, we propose optimal solutions for our flexibility and experience gained over the years, such as a customized product using the material best suitable for the type of gas.

# Showa Furyoku Kikai's blowers active all over Japan and around the world

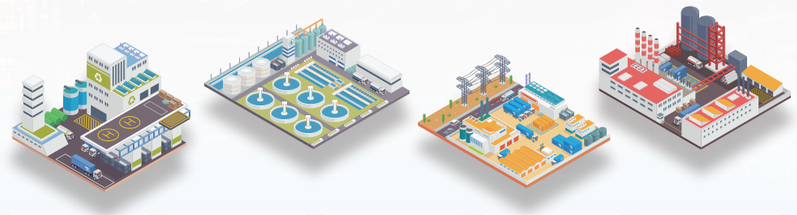
Deliveries are made overseas following our in-house manufacture, inspections, and operation tests in Japan.
We have a long track record of exporting products to factories and plant facilities around the world.

Showa Furyoku Kikai's blowers are operating in various plants and facilities in countries around the world, mainly in Europe and Asia.
Trusted by users worldwide, our blowers, which are designed to perform in a stable manner for a long time, continue to operate under harsh environments.




## We support customers in a broad range of fields, from private sectors and plant manufacturers to government agencies!

We support private sector plants in a broad range of industries, including chemical, petroleum, ironmaking/steel, power, gas, and automotive fields.
Our products are also proven in government facilities for the incineration of sewage sludge, municipal waste, and excreta, as well as grain drying and more.



| | | | | |
|---|---|---|---|---|
| Chemical | Gas | Petroleum | Papermaking | Ironworks |
| Automotive | Nonferrous metals | Food | Power plant | Glass |
| Cement | Agricultural | Industrial waste incinerators | Space centers | Sewage treatment plants |
| Water treatment plants | Municipal waste incineration | Excreta incineration | Crematoriums | Grain drying |

## Countries of delivery

- China
- Taiwan
- Vietnam
- Singapore
- Malaysia
- Thailand
- India
- Bangladesh
- Indonesia
- Nigeria
- Bahrain
- Saudi Arabia
- Korea
- Uzbekistan
- Pakistan
- Russia
- Algeria
- Turkey
- Czechia
- Slovakia
- Iran
- Brazil
- Mexico
- USA
- Philippines
- Germany
- Poland
- Ecuador
- Jamaica
- Mongolia

## Showa Furyoku Kikai's blowers contribute to carbon neutrality

Through the manufacture of highly efficient blowers, Showa Furyoku Kikai helps realize more energy-efficient operations at factories and plant facilities with the aim of realizing a sustainable society.

### Effect of blower performance on factory power consumption

High-efficient blowers play a key role in the efficient power consumption at factories. Showa Furyoku Kikai helps factories reduce their load on the environment by offering highly durable and efficient blowers through integrated in-house production that begins with design, including the manufacture of impellers.

### Long-term maintenance for stable performance upkeep

Realizing an integrated in-house production system since the company's founding, we maintain and manage the manufacturing information of all blowers that we manufacture. This enables long-term maintenance and a product life cycle that allows the blowers to operate at 100% at all times.

# Showa Furyoku Kikai Co., Ltd.

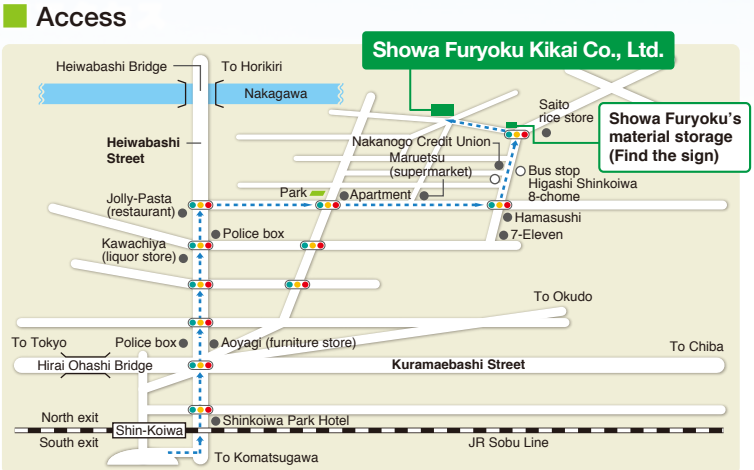
## Company profile

| | |
|---|---|
| Company name | Showa Furyoku Kikai Co., Ltd. |
| Established | April 3, 1963 |
| Capital | 41,000,000 yen |
| Business overview | Design, manufacture, and sale of multi-stage and single-stage turbo blowers and turbo radial fans, as well as the planning, design, and on-site construction of facilities using these blowers and fans. |
| Headquarters | 1-16-3 Okudo, Katsushika-ku, Tokyo 124-0022 |
| Representative | President Shigeru Saito |
| Executive officers | Director, Design Department Manager Tomiyoshi Tamura<br>Director Kumiko Kase<br>Director, Manufacturing Department Manager Terumi Shinomiya |
| Number of employees | Sales, office work, etc. 14 persons<br>Engineering and service 21 persons<br>Manufacturing 30 persons |
| Overview of factory facilities | Office 510 m² (2nd floor)<br>Assembly Factory 360 m²<br>Plate Working Factory 330 m²<br>New Machine Factory and changing rooms 275 m² (3rd floor)<br>Machine Factory 82 m²<br>Warehouse 200 m²<br>Premises 1,500 m² |
| Banks | Koiwa Branch, MUFG Bank<br>Katsushika Branch, Mizuho Bank |

## Company milestones

| | | |
|---|---|---|
| February | 1962 | Showa Koki Seisakusho established by Takeo Kase. |
| April | 1963 | Company name changed to Showa Furyoku Kikai Co., Ltd. with Takeo Kase appointed as president.<br>750,000 yen in capital. |
| September | 1965 | Capital increased to 1,500,000 yen. |
| June | 1967 | Capital increased to 3,000,000 yen. |
| | 1970 | Technology exported to Korea.<br>Technical tie-up contract agreed with Mizuhara Furyoku Kikai Co., Ltd. under the permission of Korea Economic Planning Board. |
| August | 1970 | Capital increased to 6,000,000 yen. |
| July | 1973 | Capital increased to 12,000,000 yen. |
| May | 1974 | Shofu Service Co., Ltd. established. |
| April | 1975 | Capital increased to 24,000,000 yen. |
| March | 1991 | Machine Factory No. 2 constructed.<br>Machining centers introduced to strengthen machining capabilities. |
| December | 1991 | Social certificate awarded to Shofu Service Co., Ltd. as an excellent tax filing corporate body by the Katsushika Tax Office. |
| April | 1993 | Capital increased to 36,000,000 yen. |
| October | 2000 | Takeo Kase recognized as a distinguished person of Tokyo by the Governor of Tokyo. |
| October | 2006 | Shofu Service Co., Ltd. merged.<br>Capital increased to 41,000,000 yen. |
| March | 2009 | Total inhouse production system structured with the construction of blast/coating factory. |
| September | 2011 | Visited by an overseas young manager organization in response to solicitation from the Ministry of Foreign Affairs of Japan. |
| November | 2011 | Social certificate awarded as an excellent tax filing corporate body by the Katsushika Tax Office. |
| April | 2017 | Social certificate awarded as an excellent tax filing corporate body by the Katsushika Tax Office. |
| March | 2019 | Material warehouse/machining factory constructed.<br>Laser machines introduced to strengthen Plate Working Department's capabilities. |
| May | 2020 | Shigeru Saito appointed as president. |
| July | 2022 | Enterprise transferred from Tajima Iron Works Co., Ltd. |

## Access





1-16-3 Okudo, Katsushika-ku, Tokyo 124-0022

TEL: +81-3-3692-2001, FAX: +81-3-3694-4719

http://www.showafuryoku.co.jp


### Train

About 20 minutes on foot or 10 minutes by car from JR Shin-Koiwa Station.

### Bus

Cross the Sky Deck Tatsumi, then take the Keisei Bus Shinkoiwa 53 bound for Kameari via Okudo/Aoto Station from the bus stop No.11 on the Tohoku Square at JR Shin-Koiwa Station, and get off at the Higashi Shinkoiwa 8-Chome bus stop. (Ride time: about 10 minutes)

### Taxi

Find the taxi stand at the roundabout south of the JR Shin-Koiwa Station.

## Delivery achievements As of February 1, 2023

Showa Furyoku Kikai Co., Ltd.

### Sewage/waste treatment

| Delivered to | Facility | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|---|
| Wakayama Prefecture/ Ito Purification Center | Sewage treatment | Aeration blower | 300ϕ | B6-C | 134.6 | 64.2 | 20 | 190 × 2 | 3550 |
| Kitakami Purification Center | Sewage treatment | Aeration blower | 200ϕ | B9-C | 45 | 70.56 | 20 | 90 × 2 | 2970 |
| Hachinohe City East Terminal Treatment Plant | Sewage treatment | Aeration blower | 150ϕ | B8-C | 36 | 64.6 | 20 | 75 × 2 | 2980 |
| Tokyo Metropolis/ South Sludge Treatment Plant | Sewage treatment | FDF | 600ϕ | B2-C | 362 | 37.3 | 20 | 310 × 2 | 3570 |
| | | IDF | No.11.5 | TSB-C | 649 | 12.3 | 40 | 220 × 4 | 1770 |
| Toyonaka City/ Harada Treatment Plant | Sewage treatment | FDF | 350ϕ | B3-C | 120 | 37 | 20 | 132 × 2 | 3580 |
| | | IDF | No.5.5 | RSB-C | 153 | 14 | 30 | 75 × 2 | 3580 |
| Hamamatsu City New Cleaning Plant | Waste incineration | FDF | 300ϕ | B3-C | 112 | 29.2 | 37 | 90 × 2 | 3580 |
| | | IDF | No.11 | TOB-C | 2493 | 7.6 | 182 | 470 × 4 | 1785 |
| Mibu Town Cleaning Center | Waste incineration | IDF | No.10.5 | TO-C | 845 | 7.86 | 189 | 160 × 4 | 1785 |
| | | FDF | 300ϕ | BO-C | 65 | 21.5 | 20 | 55 × 2 | 3580 |

### Petroleum/chemical

| Delivered to | Facility | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|---|
| Sakai Refinery, Cosmo Oil Co., Ltd. | Petroleum refining | Main Gas Blower | 350ϕ | B3-C | 153 | 37.3 | 50 | 160 × 2 | 3570 |
| | Crude diversification coker heater | IDF | No.11.5 | TO-C | 1782 | 3.26 | 155 | 200 × 6 | 1170 |
| | | FDF | No.9 | TO-C | 1074 | 2.94 | 16 | 90 × 6 | 1170 |
| Kawasaki Plant, TonenGeneral Sekiyu K.K. | $CO_2$ supply | Raw $CO_2$ Gas Blower | 300ϕ | B4-C | 97 | 54 | 40 | 150 × 2 | 2980 |
| Chiba, Sumitomo Chemical Company, Limited | Waste fluid combustion | Combustion blower | 800ϕ | BSB-C | 730 | 25.5 | 20 | 450 × 2 | 2970 |
| Vale Japan Limited | Sulfuric acid production | $SO_2$ Blower | 500ϕ | B3-C | 300 | 62.7 | 45 | 440 × 2 | 3570 |

### Power plant

| Delivered to | Facility | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|---|
| Futtsu Thermal Power Station, Tokyo Electric Power Company Holdings, Inc. | Combined cycle power generation | GT exhaust frame blower | 500ϕ | B2-C | 166.4 | 23.77 | 21 | 140 × 2 | 2970 |
| Takehara Thermal Power Plant, Electric Power Development Co., Ltd. | Effluent treatment | Oxidized air blower | 350ϕ | B7-C | 121 | 90.49 | 30 | 280 × 2 | 3570 |
| Nakoso/Hirono IGCC Power GK | Coal gasification power generation | Combustion air blower | 550ϕ | BO-C | 318 | 22.49 | 40 | 200 × 2 | 2965 |
| | | Desulfurization fan | 900ϕ | BSB-C | 846 | 18.49 | 95 | 360 × 2 | 2960 |
| Isogo Thermal Power Plant, Electric Power Development Co., Ltd. | Sulfuric acid production | $SO_2$ blower | 500ϕ | B3-C | 270 | 47 | 45 | 320 × 2 | 2970 |
| | Flue-gas desulfurization system | Circuration fan | No.12 | TSB-C | 2144 | 5 | 340 | 380 × 4 | 1470 |
| Yanaizu-Nishiyama Geothermal Power Station, Tohoku Electric Power Co., Inc. | Hydrogen sulfide remover | Process gas blower | 400ϕ | B3-C | 256 | 42 | 186 | 280 × 2 | 2970 |
| | | Process gas blower | 400ϕ | B3-C | 211 | 50 | 40 | 280 × 2 | 2970 |
| Wajima Biomass Co., Ltd. | Biomass power generation | Exhaust gas blower | 350ϕ | B2-C | 157 | 19.6 | 174 | 90 × 2 | 3580 |
| | | Raw material silo IDF | No.9.5 | TO-C | 457 | 10 | 20 | 110 × 4 | 1785 |

### Ironworks

| Delivered to | Facility | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|---|
| Nagoya, Nippon Steel Corporation | CGL | COG booster | 250ϕ | B7-C | 80 | 34.5 | 38 | 90 × 2 | 3570 |
| | Desulfurization | Heated gas circulation fan | No.14.5 | TSB-C | 1883 | 4.4 | 350 | 270 × 6 | 1180 |
| Setouchi, Nippon Steel Corporation | Annealing furnace | LNG booster | 150ϕ | B6-R | 7.8 | 26 | 30 | 11 × 4 | 3750 |
| Guangzhou JFE Steel Sheet Co, Ltd. | CAL | Circuration gas fan | No.13 | RO-C | 2900 | 5.88 | 50 | 500 × 4 | 1770 |
| Baosteel Zhanjiang Iron & Steel Co. Ltd. | CAGL | Circuration gas fan | No.13.5 | RO-C | 2420 | 8.04 | 50 | 560 × 4 | 1770 |
| Steel Research Center, JFE Steel Corporation | Ferro coke | COG booster | 150ϕ | B9-C | 29 | 26.5 | 53 | 75 × 4 | 3550 |
| Pacific Metals Co., Ltd. | Ferro nickel | Hot air fan | No.12 | RSB-R | 2022 | 2.45 | 650 | 200 × 4 | 1150 |

### Agricultural

| Delivered to | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|
| Country Elevator, JA Aichichuo | Dryer blower | No.10 | AS-R | 1740 | 1.07 | 45 | 65 × 4 | 790 |
| Kamoto Rice Center, Kamoto Agriculture Cooperative | Dryer blower | No.9 | AS-R | 1480 | 1.07 | 45 | 55 × 4 | 910 |
| Country Elevator, JA Echigo Chuo Yoshida | Chaff dryer blower | No.7 | TO-R | 600 | 0.98 | 110 | 18.5 × 4 | 950 |
| Genshu Center, Fukui Prefecture | Disinfector drying blower | No.3.5 | TO-R | 100 | 0.88 | 40 | 3.7 × 4 | 1740 |
| Country Elevator, Kisakata, Akita Prefecture | For waste straw transfer | No.3.5 | RO-R | 34 | 2.65 | 20 | 3.7 × 4 | 2500 |

### Food

| Delivered to | Application | Model | | Air flow m³/min | Air pressure kPa | Temperature °C | Motor kW×P | Number of revolutions rpm |
|---|---|---|---|---|---|---|---|---|
| Kirin Brewery Toride, Kirin Brewery Company, Limited | Aeration blower | 300ϕ | B7-C | 108 | 64.23 | 40 | 160 × 2 | 2970 |
| Kashima Plant, Showa Sangyo Co., Ltd. | Air slide blower | No.4 | RO-R | 50 | 6.87 | 20 | 18.5 × 4 | 3150 |
| Hokkaido Plant, Sanwa Yushi Co., Ltd. | Raw material dryer exhauster | No.5 | TO-C | 110 | 1.77 | 65 | 5.5 × 4 | 1470 |
| Hokkaido Hidaka Nyugyo Co., Ltd. | Exhaust fan | No.9 | TO-C | 842 | 4.42 | 77 | 90 × 4 | 1485 |
| Konsen Factory, Yotsuba Milk Products Co., Ltd. | Exhaust fan | No.8 | TO-C | 1450 | 5.8 | 15 | 220 × 4 | 1785 |