Realizing SDGs through the fusion of knowledge

About Us About Products

Connecting Southeast Asia and Japan through the Energy of Thoughts





With Japan's advanced technology at its core, while strengthening relations with Southeast Asia, the the world will be a better place.

We believe that Southeast Asia can be much more developed than it is now because it has ample room for development. There is a lot of energy and people's passion in Southeast Asian countries. These countries will further improve if they are supported by developed countries.

Southeast Asian countries can develop greatly with the help of Japan, which is a technologically advanced country. Japan can help them with advanced technology, and in turn can be helped by human resources provided from these countries. The world will be a better place if we build such a relationship.

> We should not consider Southeast Asian countries as dealing counterparts. Instead, we should think of them as our partners with whom we can be happy together.

In Southeast Asia, not only large companies but also small and medium-sized companies seek Japanese technology. Therefore, Japanese companies need to respond to small-scale needs in Southeast Asia.

> Japanese companies must understand exactly what Southeast Asian countries truly want, and must respond to their needs from a unique perspective. And some Japanese company among others must play that role. And it's us, Enebloom, who can fulfill that role.



Project Design

There are two core components to our business. Through these two businesses, we will contribute to the creation of affluent lifestyles in Japan and Southeast Asia.

Connecting Southeast Asia and Japan through the Energy of Thoughts

Enebloom

Export of industrial products

Promote industrial equipment in high demand in Southeast Asia, especially Japanese products that excel in terms of SDGs.

Import of intellectual properties

Introduce knowledge and manpower from Southeast Asia to Japan to contribute to mutual development.



I was born and raised in Japan. When I was halfway through my life, I took a new job in Southeast Asia. Until then, I had been working in production and sales at one of Japan's leading industrial equipment companies listed on the first section of the Tokyo Stock Exchange. Working in Southeast Asia shows that many countries in the region have a passion for development. It is a passion of people to improve their lands, which Japan had long forgotten. Production facilities in Southeast Asian countries are still fragile and often lack environmental impact consideration. Many machines and equipment do not meet the high quality demanded by producers. It is especially true for small and medium-sized companies. "I want to do something about it! I want to respond to not only large enterprises but also to small and medium-sized businesses! There still is ample room for development in this country!" These thoughts led me to establish Enebloom.

Masayoshi Ito, President & CEO of Enebloom Inc.



We deliver superior products of high quality to Southeast Asia.

Japan has many excellent products of industrial equipment. They are products of superior quality, superior SDGs, and low environmental impact. Such equipment and machines are essential for the future development of the industry in Southeast Asian countries. Enebloom selects Japanese products that are truly suitable for Southeast Asian countries, and further selects and delivers only the best products suitable for each specific country.



Export of industrial products

Products and Services for SDGs Society.

No chemicals are used, and none are harmful to the human body or the environment. Therefore, it is a practical product with low environmental impact and friendly to both the machine and the environment. So it is easy to maintain and lasts for a long time.

Product line for detergent-free cleaning

Mold Water pipe cleaning with electrolyzed water without chemicals

Chiller

chemicals

Injection



Water pipe cleaning with electrolyzed water without chemicals

Tube cleaning with ball

cleaning without



Sterilizes water and air with deep ultraviolet LEDs (UVCLEDs) without the use of mercury





Cooling tower

Descaling with electrolyzed water without chemicals





Solution

Cooling pipe cleaning system for molding

No chemicals are used and electrolyzed water is used for cleaning, so it is safe and secure, and has low running cost! We are confident of the cleaning effect!

This device uses a proprietary electrolysis technology to generate molecular clusters of water to clean cooling pipes and other equipment. It can be used not only for molds, but also for cleaning water pipes of under-hoppers of injection molding machines, oil coolers, temperature controllers, chillers, etc.

Product overview

The system generates molecular clusters of water (activated water) using own proprietary electrolysis technology and performs cleaning of cooling pipes, etc. using activated water with citric acid added (700-900g).

► Features

It can be used not only for mold cleaning but also for water pipe cleaning in molding machine's under-hopper areas, oil coolers, temperature controllers, chillers, etc.

- The embedded flowmeter allows the user to check the flow rate at the beginning of cleaning and any increase in the flow rate during and after the cleaning.
- The caster wheels allow for easy mobility.

► Effect

Increased productivity. After 6 hours of mold water tube cleaning, the time of cooling was reduced from 17 sec to 13 sec (23% improvement).



Examples of cleaning locations and effects

Example of cleaning an under-hopper area

Even though the pipe under the hopper was bent at a right angle, it was possible to remove the rust by cleaning.



Example of oil cooler cleaning

13.7 lit/min --> 38.2 lit/min The flow rate increased by 24.5 lit/min after 14 hours of cleaning.



13.7ℓ/min

206

After

38.2*ℓ*/ min



Example of mold water pipe cleaning

Rust bumps are removed.

As can be seen from the graph, the flow rate increased and became stable after 6 hours. Only 6 hours of cleaning is sufficient.



 $3.7\ell/min$



 $5.0\ell/min$



Main cleaning points





Under-hopper area, Oil cooler





Mold water pipe

Temperature controller







Air Compressor

- Air Dryer
- Water Cooled Air

Conditioning Unit

- Q What is the size and weight of the system? A 91 cm (W) \times 53 cm (D) \times 128 cm (H) 150 kg without tank water, 230 kg with tank water
- Q Can we clean pipes other than mold water pipes? A You can clean pipes of molds, chillers, heat exchangers, oil coolers, molding machine's under-hopper areas, temperature controllers, etc
- Q Can any water be used for cleaning? How much citric acid do we have to add? A Any water, such as industrial water or tap water, can be added to the wash tank. Add 700-900 g of citric acid to an 80-liter tank of water
- **Q** Can we drain the used water as it is?
- A You can drain the water as it is, only on one condition that it is diluted by adding citric acid.
- **Q** How long does it take to clean each unit? A It takes 6 to 8 hours, depending on how clogged the pipes are
- Q Is it possible to remove silica and rust clumped together?
- A It is possible to remove clumped silica and rust.

On-site water pipe scale cleaning service(on a chargeable basis)

It is therefore a low-cost operation. The service is available on a one-time basis whenever needed.

Product Overview

This is a fee-based service that brings cooling pipe cleaning equipment for injection molding machines and molds for cleaning.

We can clean molds, chillers, heat exchangers, oil coolers, under molding machine hoppers, temperature controllers, and other piping.

Features

Engineer familiar with the equipment will bring the cleaning system to the site to provide cleaning services (chargeable).

No initial cost because there is no need to purchase equipment. It is therefore a low-cost operation. Engineer familiar with the equipment will bring the cleaning system to the site to provide cleaning services (chargeable).

The service is available on a one-time basis whenever needed.

FAQ

- **Q** Can we request cleaning services on a regular basis?
- A We are available on a regular basis, although we may have to ask for some schedule adjustment.
- Q How can we check the cleaning results?
- A You can verify the effectiveness of cleaning by viewing endoscope images, measuring the flow rate, and checking dirt in the filtration tank.





Solution

Heat exchanger ball cleaning system

Cleaning with sponge ball. So it shows high cleaning effect. And because it is automatic, no maintenance is required!

How the ball cleaning system works is simple! The system uses sponge balls to physically and automatically clean the equipment, resulting in high cleaning power, energy savings, and extended equipment life.

Product Overview

The mechanism of the ball cleaning system is simple. The system passes sponge balls through the tubes of a shell-and-tube heat exchanger to physically clean the tubes.

The tubes can be cleaned repeatedly while the system is in operation. Therefore, the tubes can always stay clean. As a result, energy savings, extended equipment life, and effective maintenance are expected.

► Features

Automatic cleaning eliminates maintenance effort.

The system prevents adhesion of dirt whenever the target machine is in operation,

thereby preventing the deterioration of machine operating efficiency or problems associated with the corrosion of tubes.

Physical cleaning using sponge enables highly effective cleaning.

No environmental impact because no chemicals are used. No equipment damage caused by chemical cleaning. This prolongs the life of the equipment.

The only maintenance required is the replacement of natural rubber sponge balls. This results in low running costs.



Examples of usage locations



For automotive compressors



For automotive refrigeration

► Effect





Remains beautiful one year later





Scaled tube



- Q How often will the balls need to be replaced?
- A As the sponge balls will wear out and become smaller in time, replace all of them after use of about 3,000 to 4,000 times (about three months of use in the case of 24-hour operation)

Q Do the balls flow through all tubes?

A Due to their porous structure, the balls are designed to have almost the same specific gravity as that of the coolant, so that the flow of the coolant exerts a cleaning effect on all tubes.

Q What is the size of the sponge balls?

A Different sizes are available in 1 mm increments in diameters 10 mm and larger.

Q Is it necessary to conduct manual cleaning prior to installation?

A If the balls are severely stained, clean them in advance as they may cause clogging. If stains are soft, they can be adequately removed by ball cleaning.

Q Is it effective against hard scale?

A The cleaning system prevents scaling because it wipes off scale before it becomes hard. However, its ability to remove already adhered hard scale is limited. 4

Cooling tower descaling system

Safe and secure because it is cleaned with electrolysis water. Furthermore, maintenance costs can be significantly reduced.

When oxidized water is reduced by electrolysis, the molecular clusters of water are subdivided, increasing its surface area. This makes it easier to dissolve substances. This effect is used to remove scale and other contaminants in pipes and heat exchangers.

Product Overview

This system reduces oxidized water by electrolysis, so that the molecular clusters of water are subdivided. This results in an increase in surface area and makes the substance easier to dissolve. The system utilizes this effect to clean the inside of pipes. It also removes scale and other stains in heat exchangers.

You can check the effects of the system visually, reduce the amount of chemicals used, save a great deal of water, and reduce cooling tower maintenance costs significantly.

As a result, the investment will pay off in a short period of time.

Main Installation Location



chillers

Cooling tower

Equipment used (For standard equipment)



Electrode filter and controller

Example of descaling effect







You can see that the scale adhering to the inside of the electrode cover has been removed. (@Pilippines)





Removes red rust and stops the progression of red rust.

FAQ

Q What is the principle behind this system?

A Water is decomposed into hydrogen (H2) as well as anions (OH-) by using high-frequency electrolysis to form antioxidant water, which removes red rust.

Q What differentiates this system from those involving chemical injections?

A Chemicals injected into cooling towers are said to make scale less likely to adhere mainly due to the formation of a film of chemicals. But in reality, scale does adhere. There are also problems with the cost of chemical injection and the environmental impact of wastewater.

Q Is it safe during electrolysis?

A It is safe to put hands in the water during electrolysis. Moreover, the electrolysis does not affect other computer equipment.

Q Can the system recover the scale?

A When the scale is dissolved from the piping into water by electrolysis, the scale adheres to and recrystallizes on the electrode cover, which functions as a negative electrode. This allows scale' s recovery.

Q How often should the electrode cover be cleaned?

- A It should be cleaned once a month.
- Q Is it easy to peel off the scale on the electrode cover?
- A It can be easily removed using a spatula.

Solution

Sterilization system with UVCLEDs/Thermal barrier ceramic coating (GAINA)

The use of deep ultraviolet LEDs makes it a safe product.

In place of them, deep-ultraviolet LEDs are increasingly being used these days because they have less impact on the human body and the environment, save energy, and have a longer service life.

► Air sterilization

- Can be used in manned spaces
- It can be used at any time because it is not a chemical spray type.
- Eliminates odor-causing substances
- It captures and removes not only bacteria, but also a variety of environmental odors and allergens.
- No deterioration effects on objects
- It can be used in a wide range of environments because it does not irradiate objects directly.

► Water sterilization

We provide products that do not use mercury lamps, which have a high environmental impact, but use deep ultraviolet LEDs (UVCLEDs) to provide safe and environmentally friendly air purifiers. We sell air purifiers that are safe and have a low environmental impact, as well as heat-shielding paints that can be applied simply by painting.



High thermal barrier effect just by applying it!

► Terminal barrier ceramic coating (GAINA)

GAINA is an environment-improving functional coating material based on a technology developed by the Japan Aerospace Exploration Agency (JAXA).

This coating technology enables space rockets to withstand high temperatures; and GAINA applies this technology to our daily lives.

Insulation can be achieved simply by coating home building materials with GAINA.



There are many projects envisioned by Enebloom as shown below. We will closely support these projects.

There are many Southeast Asian countries with excellent intellectual properties, commercial materials, and human resources. Taking advantage of these assets will lead to the development of Southeast Asia and to Japan' s prosperity. It is Enebloom's wish that Southeast Asian countries and Japan will prosper together. To this end, Enebloom is willing to cooperate with any approach to Japan from Southeast Asia.





Human Resourc



Training in the Philippines



Colleagues in Japan

► About us

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