



Energy Saving/Renewable Energy Products and Technology Business Matching Event

WED. 9th NOVEMBER – THURS. 10TH NOVEMBER, 2022

Summery

~ COMPANY PRODUCTS & SERVICES ~

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MIURA SINGAPORE CO Pte.Ltd. Philippine Branch

[URL:http://miurasingapore.com.sg/](http://miurasingapore.com.sg/)

Product/Technology to be introduced

High-efficiency one-through Steam Boiler ,Water treatment equipment and Miura Intelligence Flexibility System

Application

Heating, Boiling, Drying, Sterilization, etc.

Counterpart we would like to meet with through matching

[Engineering Company]

[End-Users] Beverage and Brewery, Pharmaceutical company

[Others] Companies using steam boiler

Sales results in Japan and in the Philippines or overseas

[Sales Steam Boiler results in Japan]

Installed Boiler 111,095 units

Sales Result 5,036 units (2021)

[Sales results in the Philippines or outside Japan]

Philippines Installed Boiler 147 units

Sales Result 13 units (2021)

Outside Japan Installed Boiler 34,877 units

Sales Result 3,177 units (2021)

One-through steam boiler : SI series

Features and Superiority

Small Water quantity held leads to quick start-up and low losses

Low heat losses due to compact size

Boiler Efficiency : 98%(Gas) , 95%(Oil)

Unique technology behind features

Advanced microcomputer-driven boiler control technology offers easy operation

Features various AI functions for real-time notifications of effective data for

Maintenance and energy savings

Quantitative effect by application of this product or technology

Saving energy and reducing CO2 emissions and space-saving

High degree of safety

	MIURA	Fire Tube
Startup Time	Around 5 mins	Approx. 30 – 50min
Heat Loss	0.5% to 1.0 %	2.0% to 5.0%
Boiler Efficiency	98%(Gas) , 95%(Oil)	75% to 90%

Water Softener : MW series

Features and Superiority

MW water softener is designed to deliver a more consistent, highly softened water supply

24-hours continuous water service

Unique technology behind features

Conservation of regenerating salt through split-flow regeneration

Function for evaluating regenerating salt concentration

Function for adjusting amount of regenerating salt

Quantitative effect by application of this product or technology

Saving salt and water

Sustain the boiler efficiency

Miura Intelligence Flexibility System : ER series

Features and Superiority

- Real-Time monitoring
- Alarm monitoring & History
- Automatic Report Generation
- Historical Trend

Unique technology behind features

PLC Host Communication(Optional)

The system automatically collects the operation status of equipment that Has a MIURA controller and management data including reports.

The information of MIURA equipment can be easily imported into the customer's own system.

Quantitative effect by application of this product or technology

Measurement and recording can be performed automatically without human intervention.

Product/Technology to be introduced

A power-saving device "SHIGA SAVER" specialized in reducing power consumption of motors

Application

Completely different from conventional power-saving technologies, such as demand control systems or invertors. This is the world's first power-saving device to reduce power consumption of motors without changing its speed.

Counterpart we would like to meet with through matching

[Distributors] Seeking a company that will sell "SHIGA SAVER" in the Philippines.

[Engineering Company]

[End-Users]

[Others]

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan]

Over 300 installations in the past eight years.

Retail price per unit is several million Japanese yen (JPY) to 30 million JPY depending on the capacity of transformer.

[Sales results in the Philippines or outside Japan]

This product has never been sold in the Philippines yet.

Seeking a distributor who will promote sales of the product in the Philippines with us.⁷

Features and Superiority

SHIGA SAVER needs to be connected to each transformer. All the motors connected to the transformer can reduce the power consumption. Just connect SHIGA SAVER to a breaker, and it can be installed in a few hours without changing existing facilities. Low running costs and No maintenance required.

Unique technology behind features

Patented in Japan, the U.S., China, Taiwan, and Korea.

Quantitative effect by application of this product or technology

Once SHIGA SAVER is connected to a transformer, all the motors connected to the transformer reduce its power consumption.

According to results of our customers in Japan, 5 to 10% of the power consumption of motors can be reduced.

· Facility : 4,692,000 kWh/year ⇒ 4,274,412 kWh/year

Reduction rate: 8.9%

· Supermarket : 905,781 kWh/year ⇒ 806,145 kWh/year

Reduction rate: 10.1%

· Industrial waste treatment facility : 1,395,636 kWh/year ⇒ 1,209,720 kWh/year

Reduction rate: 13.3%

Product/Technology to be introduced

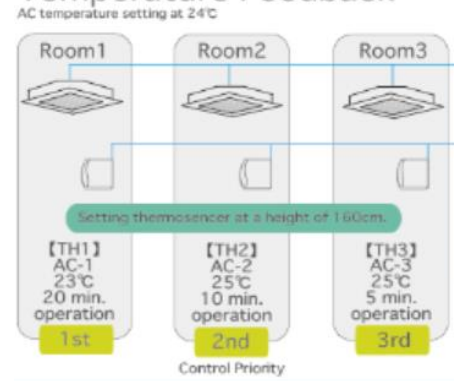
PN-XERO

Application

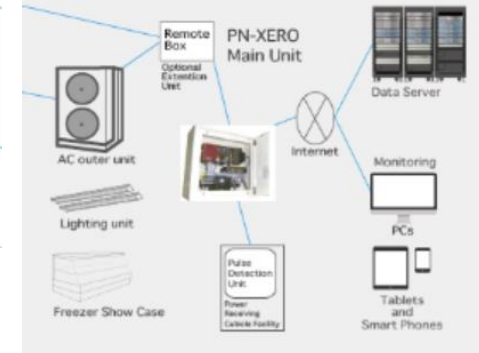
EMS (energy management system) :

A new energy saving support system to help customers using lots of air conditioners achieve reduction in energy consumption/cost of air conditioning

Temperature Feedback



System Configuration



Counterpart we would like to meet with through matching

[Distributors] distributors selling Japanese manufacturers' AC, Japanese AC manufacturers, or Japanese sub contractors specializing in air conditioning equipment for industrial use with a good customer base of at least one of the following:

- *factories (food, textile, medical equipment, etc.),
- *healthcare (hospitals, nursing homes with more than 100 beds)
- *commercial facility (shopping malls, retail shops, supermarkets, auto dealership),
- *offices, schools, universities.

[Engineering Company] Japanese companies which can provide maintenance/electrical work on equipment such as air conditioning.

[End-Users] Japanese firms in the above end-user categories which have facilities with the following conditions:

- *more than PHP5 million electricity bills per year
- *more than 600 square-meter
- *more than 25,000kWh per month
- *more than 8 CDU (condensing units)

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan] installed at over 1600 facilities

[Sales results in the Philippines or outside Japan] installed at 1 facility each in Thailand and Singapore

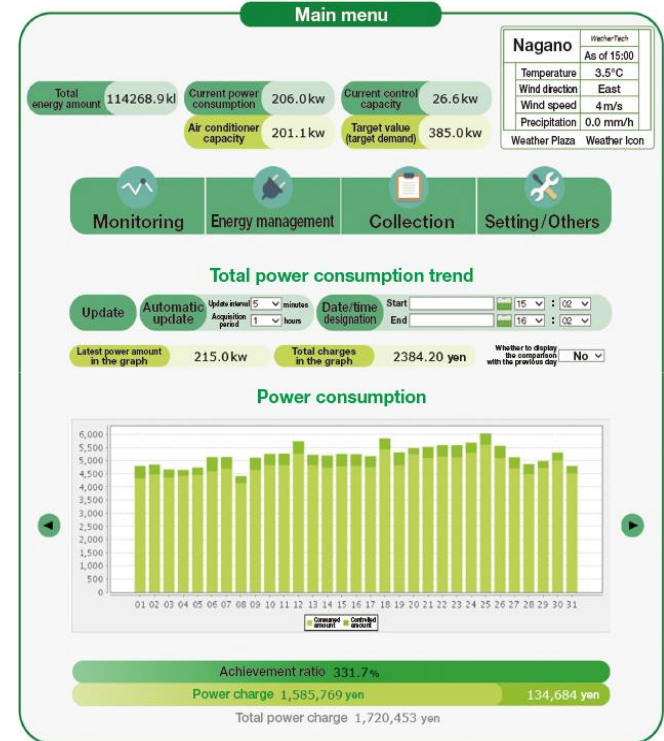
Features and Superiority

- **20%** reduction in energy use and GHG emissions of AC
- Detailed data on temperature, AC operation status, energy consumption, and energy savings can be monitored and stored 24/7, which can be accessible through the internet
- No manual operation required owing to full auto control
- Compatible with any Japanese AC units (EHP and GHP)
- Free energy saving simulation (before sales)
- Energy saving consultation (after sales)

Unique technology behind features Temperature Feedback Control System

Based on real time data of temperature coming from sensors installed at a human height of each area, PN-XERO can automatically control and adjust power of AC units to reduce energy consumption without sacrificing any comfortability.

Monitoring display example



Quantitative effect by application of this product or technology

- average **20%** reduction in energy consumption and CO2 emissions of air conditioning in Japan, where inverter type AC penetration is 100%

Product/Technology to be introduced

- Heat Exchanger Tube Cleaning System
- The system inject sponge balls which clean the tubes and totally avoids scale.

Application

- Saving on Water cooled turbo chiller to energy consumption about 20% and more.
- Reduce maintenance and chemicals cost.

Counterpart we would like to meet with through matching

End-Users] Factory, building, Shopping mall, Hospital, School,
[Distributors] Heat Exchanger chiller , Energy saving products
[Engineering Company] Heat Exchanger installer.

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan]

- Over 400 systems in Japan.

[Sales results in the Philippines or outside Japan]

- Already installed 5 customer on Japanese factory in Philippines.

Heat Exchanger Tube Cleaning System

Features and Superiority

- 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.

Unique technology behind features

- The system injects sponge balls which clean the tubes and totally avoid scale.
- Less moving parts = higher reliability.
- No moving parts in the ball trap means absolutely no sponge balls are lost.

Quantitative effect by application of this product or technology

- Energy savings of up to 20%
- With opportunities for utility rebates, our technology offers rapid financial returns
- Automation replaces manual chiller tube cleaning reducing operating costs.
- Improved chiller performance reduces carbon emissions and increases sustainability.
- Extension of capital equipment life-cycle.

Product/Technology to be introduced

- DUV-LED (deep-ultraviolet LED) Water Purifier.
- Ultraviolet rays are light with a wavelength shorter than 400 nm.
- LEDs in this range are those with a wavelength of 250 nm to 400 nm, and are called the "UV-LED" .
- As a new generation alternative to the mercury lamp, success and effective utilization in a wide range of areas is expected.

Application

- Purification pool for Aquaculture farm
- Food, Drink & Food, Drink process
- PearlAqua Deca offers the first whole home UV LED disinfection system, offering greater than 99.99% pathogen reduction without the use of harmful materials.

Counterpart we would like to meet with through matching

[End-Users] Water purifying plants, Aquaculture farm , Drinking Water Plant , Food factory

[Distributors] Distributors of Water purifying plants, Aquaculture farm, Drinking Water Plant, Foodfactory

[Engineering Company] Water treatment

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan]

- more than 80,000 units in Japan.

[Sales results in the Philippines or outside Japan]

- Not yet.

DUV-LED (deep-ultraviolet LED)Water Purifier

Features and Superiority

- Features are safety, energy-savings, and long life.
- Until now, mercury lamps have been used for purification of water and air .
- However, since mercury adversely affects the human body and environment , the Minamata Convention decided to limit it by 2020. It was then that the Deep UV-LED began to draw attention.
- The Deep UV-LED has very little harmful effect on the human body or the environment , and has the features of being compact, energy saving, and long life..

Unique technology behind features

- Technology to purify water and air using ultraviolet rays is put to practical use.
- As a new generation alternative to the mercury lamp, success and effective utilization in a wide range of areas is expected.

Quantitative effect by application of this product or technology

- Energy savings
- Chemical free
- No resistant bacteria
- Long operation life(over 10,000hrs)
- Instant start time
- Space saving/Simple Installation
- No heat effect
- No resistant bacteria
- No ozone, chemical and mercury
- Compact design

Product/Technology to be introduced

- 1.Solar Systems (Solar Panels, Energy Management Systems, Battery)
- 2.Emergency Back Up Systems For Black Out
- 3.Energy Saving Solution For Saving Energy Consumption
4. Solar Farms for High Power Out Put and Green Gas Reduction
5. ZEB (Zero Energy Building)
6. PPA (Power Purchase Agreement)

Application

- 1.Investment For Solar Systems Installation to On Site
- 2.Investment For Solar Farm Both On/Off Grid
- 3.Emergency Back UP Systems For Public And Commercial
- 4.Solar and Energy Saving Systems for Green Gas Reduction

Counterpart we would like to meet with through matching

[Distributors]

[Engineering Company]

[End-Users] Investors For Commercial Facilities, Private Factories, Public Facilities, Developers

[Others]

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan]

Total Sales from 2008 to 2021 USD730 million

63 Solar Farms, 167MW

[Sales results in the Philippines or outside Japan]

Total Sales in India 2017 to 2022

USD50,000 (Lighting System Solutions For Energy Saving)

Package system with solar power generation

Features and Superiority

In emergencies, solar power generation and storage batteries can be used to operate specific loads.

Advantec owns the equipment and receives a service fee based on the amount of energy saved, so the system can be installed at facilities with zero initial investment.

On a normal day, the solar power can supply electricity and the battery, it will accumulate power so that it can even save on our electricity bills, and also we can reduce the green gas reduction or decarbonizations.

Unique technology behind features

One-stop service from solar design to construction and maintenance.

Simulation of solar power generation and storage batteries under normal and emergency conditions.

Energy-saving know-how based on our experience in urban development projects.

Financing solutions utilizing group companies.

Quantitative effect by application of this product or technology

1. Electricity Bill saving max. 60%
2. Energy Saving Solution max. 40%
3. Emergency Back up System max. 72 hours power supply
4. Green Gas Reduction
5. Smart City Development

Product/Technology to be introduced

IGADEN, Cooling Water and Wastewater treatment system

Application

Purification of Cooling tower circulation water and Wastewater without using Chemical

Counterpart we would like to meet with through matching

[Distributors]

[Engineering Company]

[Chemical Company]

[End-Users] Factory, Office building, Industrial estate

[Others] A household user who has trouble with wastewater treatment or cooling system.

Sales results in Japan and in the Philippines or overseas

[Sales results in Japan]

This product is now used by various well-known car companies and electronic companies in Japan

[Sales results in the Philippines or outside Japan]

San Miguel : Their trial test results are good, although they have not been sold. They are currently considering purchasing.

Other major Japanese electronics manufacturers.

Cooling Water and Wastewater treatment system

Features and Superiority

- No need for the chemical injection treatment conventionally used in the wastewater treatment process.
- Capable to process both organic and inorganic materials.
- Also effective against persistent substances and enables advanced treatment of a wide variety of wastewater.
- It can remove deposited silica from water, peel off and remove scale blocking pipes in circulating water lines such as in cooling tower systems. The whole process is performed without any chemicals, so no secondary environmental pollution will be caused.

Unique technology behind features

Electrolysis to Purify Waste Water

Based on the scientific concept as water purification, this technology **splits hydrogen and oxygen gas killing pathogens at the same time**. As byproducts, it creates pure water, hydrogen, oxygen, and solid waste, which can easily be dealt with in a safe manner.

Cooling Water and Wastewater treatment system

Quantitative effect by application of this product or technology

Our system has been adopted in the “Kasumigaura water purification project” (a project for developing technologies to purify eutrophicated lakes by the Ministry of Education, Culture, Sports, Science, and Technology), “Development of purification system for hard-to-process wastewater such as wastewater from dairy parlors” (by the Ministry of Economy, Trade, and Industry), and the “Purification project for dam lakes” (by the Ministry of Land, Infrastructure, Transport, and Tourism), receiving recognition for its efficient.

The chemical-free water treatment system, “MICRO WATER SYSTEM” (patented) reduces maintenance, and operates while conserving energy at low costs. It can also separate and collect the scale in the circulation water, control saprophytic contamination, kill algae, and conserve water. Especially, this system has consistently been delivered to many ISO 14001 certified companies, gathering attention.

[“MICRO WATER SYSTEM®”: Electrolysis Type Wastewater Treatment Unit | United Nations Industrial Development Organization \(unido.or.jp\)](http://www.unido.or.jp)

Product/Technology to be introduced

~ Replacing machinery and equipment in the manufacturing factory ~

We propose energy-saving solutions to meet your factory's needs.

(e.g. Replacing Boiler, Installing an inverter, Installing conveyor equipment etc.)

Application

Replacing machinery and equipment

- Companies that want to promote energy conservation in their factories but do not know where to start.
- Companies actively working on **SDGs** and **CSRs**.
- Reducing electricity and fuel costs.
- Replacing machines to be more people and environment friendly.

Counterpart we would like to meet with through matching

- Companies that operate manufacturing plants.(Food, Chemical, Mechanical, etc.)
- Medical institutions, shopping malls, hotels, and other companies that require a stable supply of power.
- Companies that have access to manufacturing company.
- A local company that specializes in construction, electrical and plumbing work.

Sales results in Japan and in the Philippines or overseas

[Japan]

Lots of experience in installing various equipment in food, chemical, and machinery factories.

[Overseas]

<Philippines > Installation of conveyor equipment for Japanese manufacturer.

<Philippines > Diesel Engine cogeneration for Toshiba Information Equipment (Philippines), Inc.

Replacing machinery and equipment in the manufacturing factory

Features and Superiority & Unique technology behind features

- Improving the efficiency of air conditioning systems, blower fans, and other factory equipment by installing inverters.
- Reducing the workload of employees by installing conveyor equipment, etc.
- Reducing fuel costs by replacing boilers.
- Reducing electricity and fuel costs by installing a cogeneration system

Quantitative effect by application of this product or technology

- **Improving** the **efficiency** of factory equipment
- **Reducing** electricity and fuel costs.
- **Reducing** the workload of employees.
- Various other effects can be expected.
- Using subsidies might be possible.

Keywords of Saving Energy

Power Supply

Revises capacity of lighting, air conditioning, power, etc.

Heat source

Latest air-cooled heat pump, Exhaust heat recovery, etc.

Monitoring system

Controlling energy usage, Load control based on annual schedule etc.

Lighting facilities

Using LED Lighting, High efficiency lamps etc.

Machinery equipment

Installing conveyor, Cogeneration system etc.



Exhaust Heat Recovery System



Cogeneration system

~Improvement / Modification for your Equipment/~ Utilities system

- **We can advise how to improve your equipment/Utilities from our experiences**

for the Electrical Equipment / System

for the Air Supply / Exhaust System

for the Air Conditioning

for the industrial water/ Steam

for any other Utility supply



- **We can consider the modification for your equipment to meet your budget.**

For example,

We can suggest not only to replace to new one

but also to repair for your Oil Immersed Transformer

to extend the equipment life based on the DGA

* : DGA = Dissolved Gas Analysis

