



Location	Rayong Province, Thailand	
Site area	157,000m ²	
Established	February 2001	
Employees	2,167	
Main products	Compressors for residential air conditioners	
ISO 9001 certified	July 2003	
ISO 14001 certified	December 2014	
ISO 45001 certified	November 2019	
OHSAS 18001 certified	February 2012	
Super Green Heart Factory certified	December 2012 rank: Gold	

Environment: Efforts to Reduce Environmental Impact

■ Making air compressors more energy efficient

On the air compressor system on the production line, we reduced the pressure from 4.8 bar to 4.7 bar by improving the system so as to more effectively distribute the air pressure. In the drying process, we switched from an air compressor to an air blower to further reduce environmental impact.

Effects of highly efficient pressure distribution via air compressor

Investment: 2.7 million THB (Thai baht)
(approx. \$86,500)

Electricity reduction: 331,960 kWh/year

Cost savings: 454,121 THB (approx. \$14,227)

CO₂ reduction: 202.3 tons/year

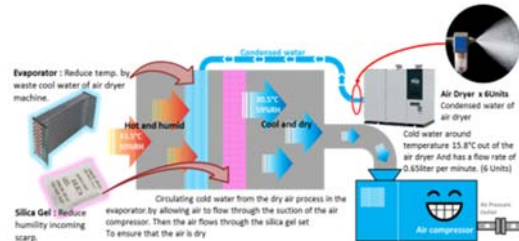
Payback period: 2.2 years

Kaizen 1: Change air compressor turbo type

This has saved 342ton-CO₂ per year.

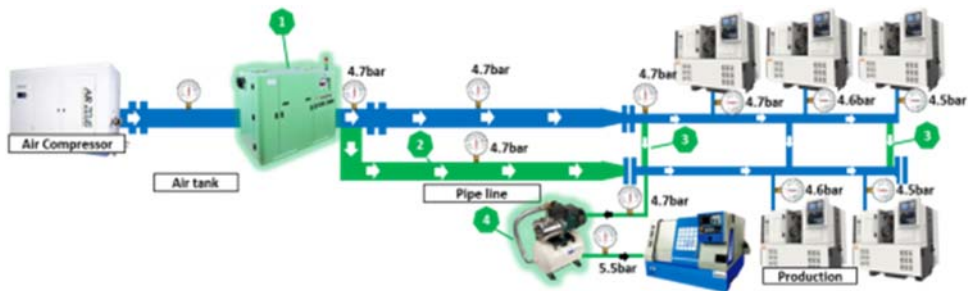
Kaizen 2: Reduce temperature air inlet of air compressor.

This has saved 5.59ton-CO₂ per year.

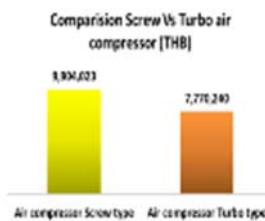


Using Technology

1. Install IFC Control to air pressure control.
2. Up size main piping to increase the limit of the transmission system.
3. Ring loop pipe to balance the air pressure.
4. Install booster pump to solve the problem of using compressed air higher than normal in some areas



Due to the hot and humid weather, the air compressor has a heavy load. Since the production of compressed air must be used in air compression by a screw compress air and will always keep dry by the air dryer machine. We have a lot of air compressors and it has a significant energy consumption. Therefore it is necessary to accelerate the kaizen.

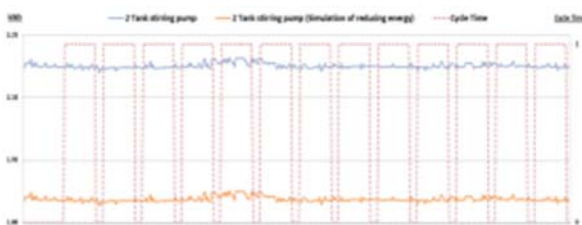
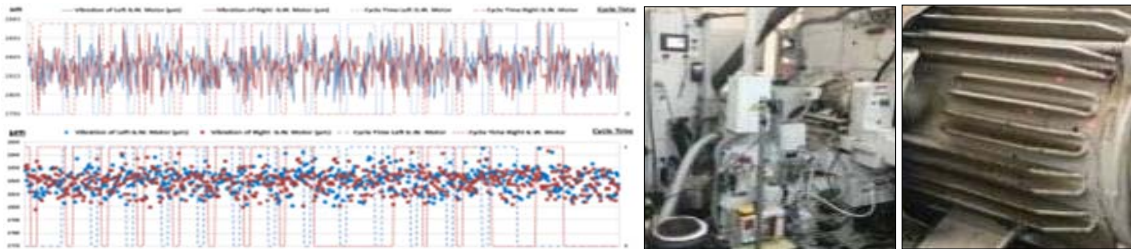


■ Reducing energy consumption with mobile visualizer Mark II

- Kaizen 1 : Change power mian motor high eff. Type
This has saved 5.2ton-CO₂ per year.
- Kaizen 2 : Reduce size coolant pump
This has saved 33.4ton-CO₂ per year.
- Kaizen 3 : Cleaning filter coolant machine.
This has saved 18.0ton-CO₂ per year.
- Kaizen 4 : Reduce energy of stirring pump tank 2
This has saved 0.31ton-CO₂ per year.

Vibration analysis by visualizer Mark II

Although the vibration measurement can not reduce the power directly but can predict the motor abnormal. By the way, Measuring vibration of old/new machine compared. With the same behavior then find distribution of information based on mathematical statistics(Max, Min, Rang, Standard Deviation). to support decision making information.



Flow test table by adjust valve

kW	m ³ /h	Open vale	Result
2.22	4	100%	OK
1.643	3.246	75%	NC
1.095	2.164	50%	NC
0.548	1.082	25%	NC

1

MUSA NO.2

The machine has a constant process by pumping the coolant specific to the process. With the pump working constantly. And is larger than necessary.

● Before (MUSA) (year 05) 15.1kwh/Year
● After (MUSA) (year 19) 10.9kwh/Year
● Reduction effect 26.5%

ICMA

Reducing the pump to be suitable for use. Can Reducing the pump 50machine
= 0.14kwh/h × 24hr × 30day × 12 months 105kwh/year
= 54.81kwh/Year

● After (ICMA) (year 05) 46.2kwh/Year
● After (ICMA) (year 19) 46.2kwh/Year
● Reduction effect 0%

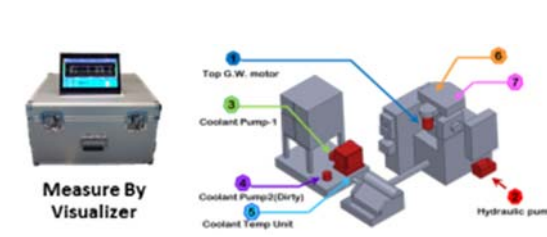
2

MUSA NO.1

● Before (MUSA) (year 05) 13.2kwh/Year
● After (MUSA) (year 19) 13.2kwh/Year
● Reduction effect 0%

ICMA

● After (ICMA) (year 05) 17.1kwh/Year
● After (ICMA) (year 19) 17.1kwh/Year
● Reduction effect 0%



3

MUSA NO.3

● Before (MUSA) (year 05) 21.7kwh/Year
● After (MUSA) (year 19) 21.7kwh/Year
● Reduction effect 0%

ICMA

● After (ICMA) (year 05) 24.5kwh/Year
● After (ICMA) (year 19) 24.5kwh/Year
● Reduction effect 0%

Environment: Activities to Protect Biodiversity

■ Tree-planting

Now to increase green space and absorb more CO₂, we planted 1,065 trees, which are capable of absorbing 9,585 kg-CO₂. And Next Month (March 2020) DCI add the Trees plant 2,000 trees which are capable of absorb 18,000 kg-CO₂.



Environment: Environmental Communication Examples

■ Awareness Station

The Awareness Station has exhibits that educate employees on environmental conservation measures.

1. Waste

Employees can become more aware of the importance of waste separation.

2. LED lamp

LED lighting provides as much brightness as conventional lamps but at lower energy usage and greater cost savings.

3. Industrial fan

Selecting the appropriate sized fan reduces electricity consumption.



■ Technical Station

The Technical Station shows how technologies make for greater efficiency and environmental performance.

1. Inverter

Appropriate technologies are used in accordance with variable speed drives.

2. Air leaks

Awareness is raised about the monitoring of air leaks and the use of wind energy.

3. Hydraulic pump

It is important to reduce energy consumption of hydraulic pumps when they are not in use.

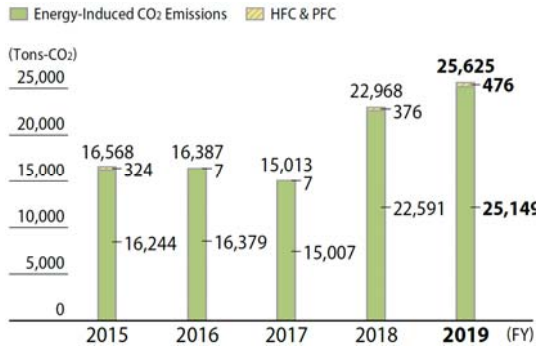
4. Water saving station

To make employees aware of water usage

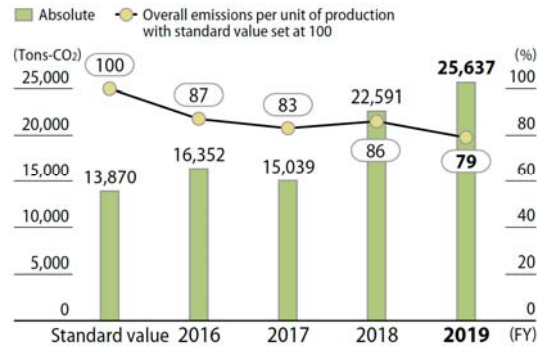


Environment: Environmental Performance Data

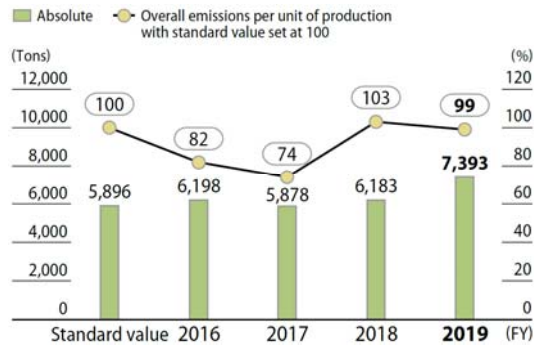
Greenhouse gas emissions



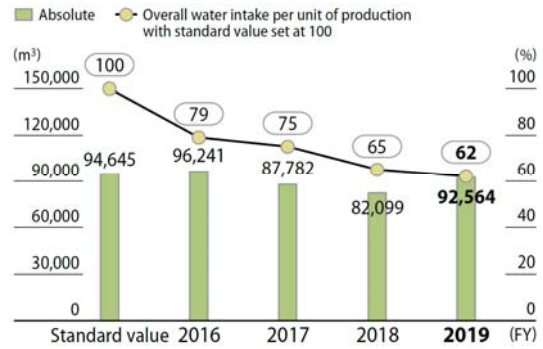
Energy-induced CO₂



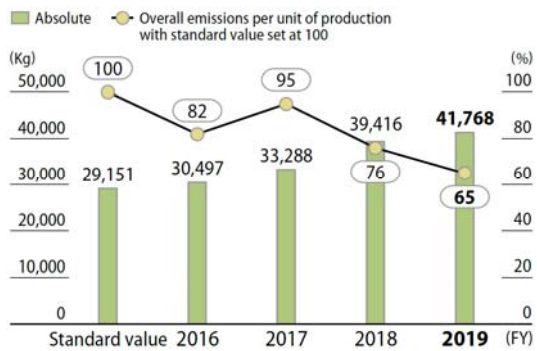
Waste (Including valuable materials)



Water intake



VOC emissions



Customers Satisfaction: Efforts to Improve Product Quality

■ Supplier audits

To improve suppliers' quality, we join our customers in conducting supplier audits and then following these up by making audit reports.



Human Resources: Training for Employees

■ Human resources development for all employees

All employees undergo a variety of training in order to improve their skills and knowledge. In order to improve job performance through training and education programs, training road maps are created for each type of job based on each employee's capabilities.

Our training center is divided into areas, each for a specific type of training.



Human Resources: Promoting Diversity

■



Human Resources: Efforts to Occupational Safety and Health

■ Improving traffic safety

Inspections were conducted to ensure drivers and employees are driving safely. All people operating vehicles utilize evasive driving tactics.



Communities: Environmental Protection Activities

■ Local CSR activities

Activity to return to the Amata City Industrial Estate by the Amata Group to plant trees, release fish and schools near the Industrial Estate.



■ Mangrove planting

We are trying to expand the mangrove forest by creating an environment conducive to the growth of new trees. An abundant mangrove forest leads to more aquatic life. This in turn contributes to the local fishing industry, which provides much-needed income for the community.

(Continued from last fiscal year)



Communities: Support for Educational Activities

■ Factory tours for students

We give local students factory tours, an experience that teaches them about production line processes, quality control, improvement activities, and environmental protection efforts.

(Continued from last fiscal year)



■ Sharing Love for Children Project In Nakhon Ratchasima

We participate in paint leakage school activities Assemble the bookshelf in the library room.



Communities: Other Regional Activities

■ Safety activities

Activities at Wat Huai Prap School About the safety of passenger vans.



■ Visit to a rehabilitation center

Twenty-one of our employees visited a local workers rehabilitation center, where they ate and played games with the patients.

