## DAIKIN SHIGA PLANT

# Fine & Amenity

Creating pleasant and comfortable environments



No matter how advanced a technology, it has little value if it is simply on the cutting edge. The focus must always be on people and on providing them with things that give satisfaction through comfort and ease of use. Conceiving such products is precisely the aim of the Daikin Shiga Plant. When we seek to improve our own factory, the ease and comfort of our workers is a top priority. In every activity, Daikin strives to create as pleasant an environment as possible for everyone.

#### History of Shiga Plant

1970	Shiga Plant established	199
1978	Production of Daikin System (PDS) introduced	199
1980	No. 2 Factory begins operation	199
1987	Activities begin for Total Productive Maintenance (TPM)	200
1989	Cumulative production reaches 5 million units	201
1993	No. 3 Factory begins operation	201
1994	Awarded quality management system standard ISO 9001	



- 6 Awarded international environmental standard ISO 14001
- 8 Cumulative production reaches 10 million units
- 9 High Cycle Production activities begin
- 6 Cumulative production reaches 20 million units
- 2 Awarded Occupational Health and Safety Management System OHSAS 18001
- 6 Cumulative production reaches 30 million units



The Shiga Plant is not just a manufacturing site: it's a place where people can work in a pleasant and comfortable environment. Immersed in surroundings of great natural beauty, the Shiga Plant aims to provide its employees with a workplace that is pleasant and easy to work in. From

the environmentally conscious wastewater treatment plant to the Energy Center, and from employee rest areas near the production lines to natural lighting, the Shiga Plant offers a comfortable work environment in which the needs of employees are always front and foremost.

#### Shiga Plant Description

Established November 6, 1970 Site area 255,838 m<sup>2</sup> Number of employees Approx. 2,300 Production volume Up to approx. 5,500 units per day

Major products Residential air conditioners



## The Shiga Plant is an integrated production plant for room air conditioners

Employees collaborate throughout the production process—from the design and manufacturing of parts to the development, production, and supply of finished products.





## The key to creating a comfortable environment lies in creating a comfortable workplace

Relationship with the local community

#### A plant in harmony with the natural environment

Employees at the Daikin Shiga Plant cherish the bountiful natural environment of Shiga and the splendor of Lake Biwa.



Shiga Plant employees join a Lake Biwa cleanup on July 1

#### The Shiga Plant welcomes tours by elementary school students from Kusatsu City



#### Employees share their ideas for a nighttime summer festival

To be a plant that grows along with people in the local community, we will continue to provide opportunities for exchanges and places to have those exchanges



ity also participate in the "Bon" festival dance







Every year the festival attracts more than 9,000 people



The spectacular fireworks of the finale have become a local event

#### New employees undergo experiential training to improve their awareness

Experiencing hazards physically helps new employees to learn the importance of the "stop, call, and wait" procedure. Before being assigned to their posts, they are also exposed to physical sensations related to basic on-site operations.





Employees can experience the fear of electricity and the feeling of heavy objects using our in-house experiential training machine

Employees learn practical skills of screwdriver operations

#### We have established a system that allows us to act guickly in the event of an emergency

We regularly perform fire and disaster prevention drills to ensure that everyone can respond calmly to an emergency.



The in-house fire brigade trains people how to use fire extinguishers and fire hydrants



The in-house fire brigade conducts rescue training

#### We strive to prioritize the mental and physical well-being of our employees

We emphasize health maintenance activities aimed at promoting awareness and achievement of mental and physical well-being.





Employees enjoy the fun and excitement of exercising at our annual athletics day

Space is provided to employees for light exercise and relaxation



Mental health workshops are held for various people



#### Aiming to build a plant that benefits the earth's environment

We continue creating products that build on our technological strengths, including energy-efficient inverter technology, heat pump technology that achieves major CO<sub>2</sub> reductions by eliminating fuel-burning heating, and non-CFC technology aiming to realize completely CFC-free products. The Shiga Plant minimizes energy consumption and helps to mitigate global warming through improved production efficiency with a streamlined production process. In addition, by separating and recycling 100% of the refuse generated at the plant, we have realized a clean plant that does not generate waste. All plant employees share a workplace culture of "always acting with the environment in mind," constantly thinking of the planet's future in their day-to-day activities.



energy

#### Protecting Biodiversity at the Shiga Plant

Employees are growing a forest on the plant premises to strengthen the link with the surrounding environment and create a rich ecosystem for supporting wildlife



Employees plant trees on aqueducts

#### Eco-Symbol Mark In all of us, a green heart



The continuous efforts of each worker add up to great achievements in environmental protection. The green heart-shaped symbol, introduced in February 2002, stands for the genuine consideration of each Daikin worker for the earth and the global environment.

Mar. 2019

May 2017

Feb. 2018







"Karakuri" is utilized for the thrust and inclination of transport vehicles to supply parts to production lines and save



D-BIPS\* and other methods are used to control all energy used at the plant, make visual representations of energy usage, and develop energy-saving activities for all divisions

\* A building-integrated monitoring board that continuously monitors energy and controls power consumption





Local firefly at Shiga Plant

Records of awards received for activities in the forest on the Shiga Plant grounds May 2010 Won the 3rd Kusatsu City Grand Prize for Mitigation of Global Warming

June 2016 | Won the Japan Biotope Association's Special CSR Prize in the 8th Biotope Award

Won an Excellence Award from the Ministry of the Environment in the 3rd Environment Manpower Creation Company Grand Prize

Won the Grand Prize in the Company and Organization Section of the Kusatsu City Eco-Style Contest

Received 3 Stars in the Shiga Biodiversity Award, sponsored by the Shiga Prefectural Government



### Our design, planning, manufacturing, production engineering, and procurement departments work together as one. This allows us to manufacture products that contribute to customers and to society

The Shiga Plant pursues a development theme and product concept of "creating abundant living spaces." Air can create comfortable living spaces for relaxation and spaces for healthy sleep. Through our products, we want to provide customers with abundant living spaces.



products



Ideas are studied in product planning



Designers work closely with other departments such as procurement, manufacturing, and production engineering to develop products



Testing assumes ordinary household use of Users operate our products while referring to the relevant instruction manual



Residential air conditioner | Heating | Heat reclaim ventilation



## Daikin's unique production system consistently delivers the right products at the right time in the right quantity

Providing what's needed, when it's needed, in the amount needed: Daikin's unique, constantly evolving PDS production system delivers on that promise. At the forefront of PDS is the High Cycle production system, which is capable of swift variations in product type and quantity according to requirements. Tapping Daikin's exclusive IT resources, this system responds rapidly and flexibly to changing customer needs, using a production plan that reflects up-to-the-minute data on markets, inventories, parts, and workplaces. With the introduction of this system, we are now capable of adjusting production capacity on a day-to-day basis. Daikin endeavors to both minimize lead times and lessen environmental impact by constantly developing the Daikin production system to improve processes even furthe



Automated guided vehicle (AGV)



Assembly line for outdoor units

#### How Daikin's production system evolved



Production based on seasonal forecasts



Response to diverse customer needs

Multi-product, variable quantity production Daily high-cycle production

Rapid response to a wide range of changes



### A new production method that maximizes the potential of individual workers and supports multi-product, variable-quantity production

To allow for multi-product, variable-quantity production at the Shiga Plant, we use the Daikin cell production line, a line that combines the cell production method with Daikin's own innovations. This revolutionary production line enhances efficiency levels by introducing a process that maximizes the working potential of individual workers. The heights and inclinations of the work tables are automatically computer-adjusted to suit individual workers, creating a better working environment for each person.

Instructions for work procedures are also computer-optimized to promote even greater efficiency in each step of the production process. Our efforts to provide a pleasant working environment for our employees are ongoing.

> Automatically adjustable work table allows for high efficiency

#### Automation line for outdoor units













## Access to the Shiga Plant



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