CORPORATE NEWS

November 25, 2015

Completion of the "Technology and Innovation Center"

Aiming for New Value Creation as a Core Base for Technology Development

Daikin Industries, Ltd. announces the completion of the Technology and Innovation Center (hereinafter referred to as "TIC") at its Yodogawa Plant located in Settsu City, Japan. With operations starting on November 25, 2015, the new facility will function as the core base for technology development of the globally expanding Daikin Group.

Engineers that had been dispersed to three Daikin bases in Japan (Sakai, Shiga, and Yodogawa Plants) have been shifted to TIC to promote technology development in a system of approximately 700 people. Serving as the center of the technology development that Daikin is expanding to every region of the world, TIC will actively promote global cooperation with industry, government, and academia and attract people, information, and technology from around the world. Daikin is building the world's No. 1 technology in core technologies that include inverters, heat pumps, and fluorochemicals through the collaborative creation of innovation inside and outside the company and will leverage new and advanced technologies to expand business with differentiated products and create new value and business opportunities.

The speed of progress and change in technology centering on telecommunications and software continues to accelerate. Daikin is anticipating this change, enhancing each core technology in the businesses of air conditioning, chemicals, oil hydraulics, defense systems, and electronics, and endeavoring to fuse world-leading technologies that include technologies in telecommunications, advanced materials, processing, sensors, and medical equipment and healthcare. Together with business expansion, Daikin would also like to contribute to society by providing products and services that help solve social issues, including those related to the environment, energy, and health while affecting change in the lives and lifestyles of people.

TIC will help Daikin accelerate implementation of "collaborative creation" on a global level through alliances and collaborations with various companies, universities, and research organizations possessing distinctive technologies in a different field or industry. Daikin already actively promotes comprehensive alliances with Kyoto University, Osaka University, and Nara Institute of Science and Technology and joint research and development with home builders, manufacturers of electrical appliances and materials, and architectural firms. In the future, we will invite experts to TIC from every field for long-term stays to provide guidance in technology and proposals on strategy for mid- to long-term technology development involving Daikin engineers.

Daikin will create new value for customers by advancing collaborative innovation centering on TIC.

To achieve this, a variety of design innovations were incorporated in the TIC office and laboratory areas to promote collaborative creation for engineers to overcome barriers.

【Offices Promoting Collaborative Creation】

In the TIC offices, office work areas for engineers are arranged at distances that facilitate optimum communication between people. Various places are provided in the building to accommodate impromptu meetings for both small and large groups and an innovative floor design allows company engineers to congregate freely and engage in active discussions.

Waigaya Stage

Meeting space has been provided between the office work areas on the fourth and fifth floors to quickly enable *waigaya* (collaborative creation). Discussions can be seen from anywhere in the office, and this encourages all those who are interested to participate. Office work areas have been arranged to be within 30 meters from the *Waigaya* Stage based on the premise that the “threshold distance for which humans can maintain awareness of conditions” is 30 meters.

Chi No Mori

This is the space linking product development and collaborative creation gained through customer negotiations and information exchanges. In the Chi No Mori exhibition area, Daikin core technologies and advanced technologies under development are displayed. Seeing these tangible innovations helps inspire partners inside and outside the company to discover new concepts and leads to the creation of new themes for solving problems and developing applications.

Future Lab

A large space has been provided as an area where people of various industries, regardless of affiliation, can actively advance with collaborative creation. It was created for discovering innovation themes that anticipate 10 to 20 years in the future. Experts will be invited from outside the company to this remarkable space that differs from the office and laboratory areas to share their wisdom and knowledge and participate in stimulating discussions.

Fellow Rooms

As part of efforts to promote collaborative creation with outside parties, office space has been provided at TIC for university lecturers and opinion leaders from Japan and other countries to freely use. Furthermore, some of the rooms will function as satellite offices for industry-academia collaboration headquarters. Seven Fellow Rooms have been established with different designs and interiors for use by researchers from various countries and having a diverse sense of values.

Auditorium

A circular auditorium with a seating capacity of 250 people has been established to enable a variety of people, both inside and outside the company, to gather and participate in lectures and presentations. Simultaneous interpretation booths have been established behind the seats and correspond to simultaneous interpretation for four languages.

Daikin Discovery Hall

For outside collaborative creation to succeed, a basic understanding of Daikin culture and DNA is essential. At TIC, a history of Daikin management decisions, technology, and products are on display, and an area has been established called Daikin Discovery Hall that stimulates new ideas by providing a look into topics of the past.

【Efforts for the Environment】

TIC is a building that combines Daikin technologies to achieve zero energy building (ZEB). With the completion of TIC, Daikin will aim for an initial 70% energy reduction and 100% energy savings in the future by updating facilities as a solution model for development and verification of each new energy technology. Specifically, TIC, will introduce the following energy-saving technologies upon its completion:

- Individual control of temperature and humidity by multi-split air conditioners for ZEB and DESICA (humidification and ventilation) that realize energy savings that goes one step forward by individual control of temperature and humidity;
- Peak shift by thermal storage and heating by exhaust heat recovery;
- Optimum setting of the overall system by Building and Energy Management System (BEMS) central monitoring; and
- Solar panels with tracking mounts to improve power generation efficiency.

Even in Japan, there have been few instances of actual recorded data for the introduction and use of these energy-saving technologies, and Daikin intends to utilize these results to obtain the highest rank of Platinum for LEED, a green building certification program in the United States.

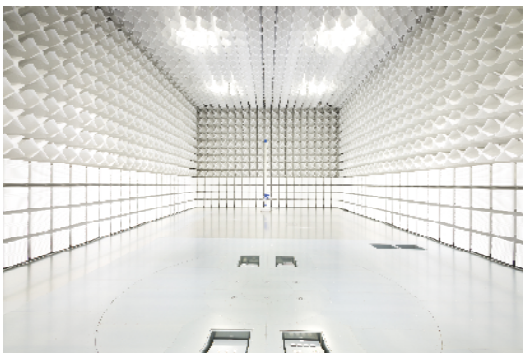
Furthermore, visitors will to TIC will be able to confirm these energy-saving efforts and status energy-reduction condition at Information Stage, where visitors to the facility can freely observe. Daikin wishes to promote collaborative creation by having visitors understand its energy-saving technologies.

【Laboratories Supporting Core Technologies and New Value Creation】

In addition to an air conditioning element platform that is currently underway and a testing room for product base models, TIC is equipped with world-leading laboratory facilities that are necessary for future business development including businesses involving heating and hot water supply, fluorine materials, and global air conditioning. To improve development speed, the office and laboratory areas are adjacent and designed for easy access between the two areas. Laboratory facilities of closely related fields are built to adjoin to each other for further promotion of collaborative creation. An innovative design is incorporated in which walls were minimized to promote communication.

Ten-Meter Electromagnetic Semi-Anechoic Chamber

Built with a two-stage (upper and lower) large table, this world-leading laboratory facility measures electromagnetic noise that causes electronic equipment and devices to malfunction and allows air conditioning indoor and outdoor units to be connected and rotate at the same time. This will enable Daikin to react more quickly to electromagnetic noise regulations in each global market and realize greater development speed while improving product reliability.



Low Temperature, High Humidity Laboratory

This is a testing facility that maintains a maximum of 90% humidity in an environment that simulates conditions of an outdoor air conditioning unit installed in environments of extreme temperatures ranging from -35 to 60℃ and can confirm resistance to cold of outdoor units exposed to severe freezing and frost formation. Installation conditions are recreated for each global market and improve product reliability.

Artificial Climate Laboratory

Radiant heat panels are installed to all surfaces of the ceiling, walls, and floor of the room. Actual environments where products are used are considered, and tests are conducted by assuming conditions such as “sunlight cast from the window and heat entering from one surface of the room.” Furthermore, because temperature and humidity of the room can be freely changed, tests can be performed with various mannequin combinations to measure body surface temperatures and provide information relating to human comfort.

Sleep and Metabolic Laboratory

A bed and toilet are installed in the testing room to provide an environment capable of supporting human living conditions. This will enable experiments corresponding to air environments in the home and human physiology and help verify the creation of new air value such as air providing life vitality and relaxation and air promoting a good night’s sleep.

【Summary of Technology and Innovation Center】

1）Facility summary：Technology and Innovation Center
Total area: approximately 58,000 ㎡ total area and 49,000 ㎡ floor space in a six-floor building
2）Location：Settsu City, Osaka Prefecture (within the Yodogawa Plant of Daikin Industries)
3）Investment： approximately 38 billion yen
4）Operation start：November 25, 2015 (Construction start：November 2013)
5）Personnel： approximately 700 people