

# Integration/Expansion of Research and Development Sites of Paint Finishing System Division -Establishment of the Technical Center in Zama-shi, Kanagawa-

Taikisha Ltd. (Head Office: Shinjuku-ku, Tokyo; Representative Director, President: Toshiaki Shiba) opened the Technical Center (Location: Komatsubara, Zama-shi, Kanagawa), the new research and development sites of the Paint Finishing System business, on February 5, 2019. With the new Technical Center, established by partially innovating and expanding the former Zama Technical Center and integrating it with the former Hirakata Development Center (Location: Ikaga midori-machi, Hirakata-shi, Osaka), Taikisha will pursue further reinforcement of its comprehensive development capabilities and quality assurance system.



Exterior Appearance of the Technical Center

## Background and Purpose of the Technical Center

Since its establishment in 1980, the Zama Technical Center of the Paint Finishing System Division has worked mainly in R&D activities in the automation field, such as conducting paint tests and developing paint finishing systems with the use of paint robots and application equipment, as well as conducting simulations under varying conditions using a wide variety of car bodies and paint material. Meanwhile, Hirakata Laboratory (renamed as Hirakata Development Center), established in 1964, mainly carried out R&D activities of key process facilities for automotive paint shops, such as pretreatment systems, Electrodeposition-coat facilities, painting booths, and baking ovens.

With the new Technical Center, established by partially expanding the former Zama Technical Center, introducing innovations, and integrating it with the former Hirakata Development Center, Taikisha will develop innovative, environmentally friendly, energy-saving, and quality-improving technologies. For instance, Taikisha is focusing on developing a paint method that remarkably improves coating efficiency by controlling paint flow. This is achieved by manipulating paint by droplet size (in other words, at particle or grain level) to deliver high coating efficiency. Taikisha will also be focusing on the development of an ultra-energy-saving paint booth, which is facilitated by this new painting method, as well as on the development of systems using IoT and AI. Through these initiatives, Taikisha will reinforce its comprehensive new technology development and quality assurance system to consistently meet customer needs. Taikisha will also enhance its capability to provide services to its customers both inside and outside of Japan, as set out in the Mid-Term Business Plan, by expanding into business surrounding the automotive paint shop, through promoting robotized painting systems for other customers than the automobile industry, such as the aircraft manufacturing and maintenance business, developing technology adapted to new materials, and expanding the conveyer system business. In particular, the development of automatic painting systems for aircraft has been accelerated as a future important and promising field through cooperation with Encore Automation LLC (Michigan, USA; in business and capital alliance from 2014) which has its own original painting system technology for aircraft. The plan to establish the Technical Center includes the installation of test equipment for automatic aircraft painting systems with an eye on the mid to long term business expansion of Taikisha.

• Outline of the reclinical Center of the raint Finishing System Division	
Location	2-14-10 Komatsubara, Zama-shi, Kanagawa (Former Zama Technical Center)
Building configuration	Steel construction, four stories above ground, total floor space: approximately 4,100 $m^2$
Facility configuration	Planning zone, R&D building (including testing equipment for automatic aircraft painting system), Quality inspection laboratory, Pre-Assembly factory
Investment	Approximately two billion yen
Environmental considerations	Utilization of natural energy

Outline of the Technical Center of the Paint Finishing System Division

#### Functional Zones of the Technical Center

The Technical Center facilities consist of a Planning zone and three operating zones: R&D building, Quality inspection laboratory, and Pre-Assembly factory.

- R&D building: The facility develops environmentally friendly (energy-saving and pollution controlling) paint finishing systems. Taikisha develops paint booths, ovens, robots, conveyance systems, and paint supply systems for automotive paint factories, as well as comprehensive automation systems for polishing and painting aircraft and railway cars based on its autom otive paint technologies.
- 2) Quality inspection laboratory: The facility performs preliminary checks on the paint quality of systems for delivery to customers' factories and production sites, in order to optimize the adjustment period at customers' sites. Taikisha establishes production conditions using painting objects, paint, and peripheral materials customers use in production, and the same models of robots and paint application as those for delivery in the presence of customers and paint and peripheral material manufacturers. Quality inspection laboratory also plays a role in shortening the start-up period and optimizing production quality by applying data created in the zone at customers' sites.
- 3) Pre-Assembly factory: The facility performs test operation before delivery to check functionality and operational readiness, and ensure the quality of systems for delivery to customers' factories. Taikisha installs equipment for delivery, connect compression air and paint tubes to electric cables, and carry out checks on functionality and operational readiness and operational training in the presence of customers. In addition, Taikisha assembles parts in advance and examine optimal modularization, in order to further reduce construction period and improve installation quality.

### ▼For details, please see our website at the URL below. URL https://www.taikisha-group.com/corporate/rd/zama.html



Facility Configuration

### Opening Ceremony of the Technical Center

The opening ceremony of the Technical Center was held in the Planning zone of the new building on the facility's opening day on February 5, with approximately 100 guests comprising Taikisha's customers and business partners. During the ceremony, Taikisha's Representative Director and President Toshiaki Shiba noted, "Taikisha will further reinforce its comprehensive development capabilities and quality assurance system through the integration of R&D functions into the Technical Center. The Technical Center will also serve as a setting for communication with customers, allowing us to obtain customer feedback and requests directly and in detail."



Ribbon-cutting at the opening ceremony attended by Mayor of Zama

#### Future Business Development

Taikisha will strive to enhance its competitiveness and expand business further by providing innovation creating new value.

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