News Release

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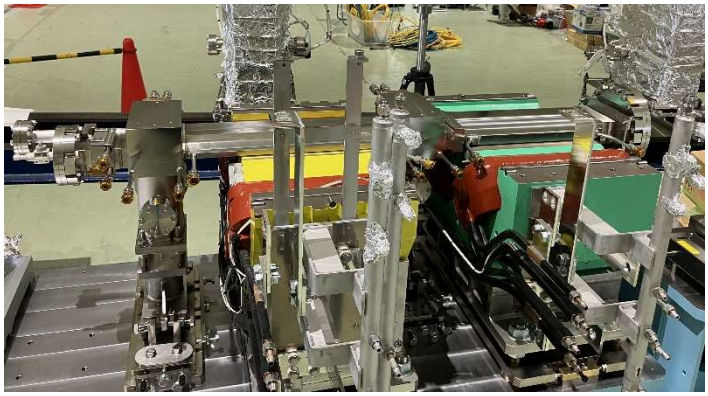
Kanadevia Corporation
Friday, June 20, 2025

Received Order for Vacuum Equipment for Storage Ring of Large-Scale Synchrotron Radiation Facility "SPring-8-II"

~ Contributing to High Performance and Energy Efficiency with Advanced Technology ~

Kanadevia Corporation has recently received an order from Institute of Physical and Chemical Research (President: Makoto Gonokami, hereinafter referred to as RIKEN), for the "SPring-8-II Storage Ring Vacuum Equipment" to enhance the performance of the large-scale synchrotron radiation facility "SPring-8" (Sayo-cho, Sayo-gun, Hyogo Prefecture). We will leverage our technological expertise to contribute to enhancing the performance and energy efficiency of the facility, supporting the realization of a circular economy and the development of a manufacturing foundation in biological fields.



Prototype of the chamber that serves as the core of the current SPring-8's vacuum equipment (Courtesy of RIKEN)

SPring-8 is a facility that accelerates electrons to nearly the speed of light and uses magnetic fields to bend them, generating "synchrotron radiation." This radiation enables detailed analysis of the structure of materials at the nano level. More than 25 years have passed since the commencement of public use in 1997, and the upgrade to SPring-8-II is being advanced by RIKEN with funding from the Ministry of Education, Culture, Sports, Science and Technology. The upgrade will achieve the world's highest brightness, approximately 100 times brighter than the current system, while reducing power consumption by half and lowering maintenance costs.

In this project, Kanadevia Corporation will be responsible for the design, manufacturing, and on-site installation of the vacuum equipment that makes up the circular "storage ring" used to accelerate electrons in a vacuum and extract synchrotron radiation. The storage ring spans a circumference of 1,435 meters with a large-scale system divided into 48 cells and requires. precise fabrication for handling electrons. Kanadevia Corporation will leverage its experience in supplying similar synchrotron radiation facilities, as well as its prototyping expertise, to advance the laser welding of the chamber that serves as the core of the vacuum equipment, and ensure its precise installation with meticulous adjustments.

Large-scale synchrotron radiation facilities are utilized in various cutting-edge scientific fields, including the structural analysis of proteins related to next-generation semiconductors and diseases, as well as the enhancement of materials for decarbonization. On the other hand, the performance upgrades of overseas facilities are becoming more prominent, and the development

of SPring-8-II has been pointed out as essential for the realization of a circular economy and Japan's growth.

As a comprehensive engineering company, we are participating in this national project and will support the creation of new platforms for collaboration between industry, government, and academia.

The outline of this matter is as follows:

1. Project Name: SPring-8-II Storage Ring Vacuum Equipment
2. Client: RIKEN (Institute of Physical and Chemical Research) National Research and Development Agency
3. Delivered to: SPring-8 (Sayo-cho, Sayo-gun, Hyogo Prefecture)
4. Size, etc.: Circumference 1,435 m, 48 cells + 1 spare
5. Delivery Date: March 30, 2029
6. Orders Received: 6.3 billion yen (excluding tax)

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