

Kawasaki Establishes New Robot Engineering Facility in Singapore

Kawasaki opened its new Singapore Kawasaki Robot Engineering Center (SKRE) in Pasir Panjang, Singapore, on June 16. This facility, which is a first-of-its-kind for Kawasaki, will focus on driving the applications development and training for its latest technology, the dual-arm collaborative robot, "duAro."

duAro, which is capable of mimicking human motions with its two independent arms, has wide-ranging applications across areas such as plastics molding, food manufacturing, metal fabrication, and electronics assembly. In addition to its practical applications, the modular nature, ease of deployment and usage of

the duAro makes it an ideal solution for small and medium enterprises (SMEs).

SKRE will provide end users with an alternative robotics solution to what is available in the market today. The use of dual-arm robots reduces the need for jigs and fixtures, compared to single-arm robot systems, and there are few other collaborative dual-arm robots available commercially today.

A key activity of this new Kawasaki robot facility is to

provide training on duAro applications in order to support and scale up the capabilities of Singapore's system integrators and end users.



Kawasaki's Aerospace Division Completes Cargo Door Production Line in the US and Wins a Boeing's 2016 Supplier of the Year Awards

In May, Kawasaki completed a production line for cargo doors used in Boeing's state-of-the-art commercial airplane, the 777X, at Kawasaki Motors Manufacturing Corp., U.S.A. (KMM), which is Kawasaki's local American subsidiary in Lincoln, Nebraska. Kawasaki held a ceremony on May 18, marking the opening of these new facilities, after which trial production began, with full-scale production activities scheduled to commence in the fall of this year.

Construction of the production line facilities began in December 2015, in a 2,800 m² (30,139 sq. ft.) area of an existing Lincoln Factory building, and the project represents Kawasaki's first establishment of an aircraft parts production line in the United States. The new facilities feature proprietary painting robots developed by Kawasaki that provide intricate, precise painting, as well as auto riveters with an expanded operating range and other state-of-the-art equipment to achieve greater automation for high-quality, high-efficiency production operations. Furthermore, Kawasaki is actively incorporating its unique KPS* production system, developed through mass-production activities over the years, into its aircraft parts production.

In the future, the company also plans to integrate information and communication technology (ICT), Internet of Things (IoT) technologies, and other smart factory technologies and

infrastructure like those being utilized in the newly completed 777X Assembly Plant at Nagoya Works 1, which has undertaken production of forward and center fuselage sections.

Steady growth in aircraft demand is expected to continue throughout the global commercial aircraft market. With these new production facilities for Boeing 777X cargo doors in place, Kawasaki has designated the Lincoln Factory as its main aircraft parts manufacturing base in the U.S.A., and will actively pursue the expansion of its commercial aircraft business as well as the continued growth and development of KMM.

Kawasaki Group company NIPPI Corporation received a Boeing's 2016 Supplier of the Year Awards (the Collaboration Award) in April. The award received by Nippi from the company this time follows its receipt of Boeing's President's Award for Excellence in 1998.



Boeing 777X cargo door production line

The 2016 Supplier of the Year Awards recognized 13 companies, selected from more than 13,000 eligible Boeing suppliers in 48 countries, for their outstanding achievements. Award-winners displayed exceptional performance, meeting high-level customer satisfaction standards.

NIPPI's receipt of a 2016 Supplier of the Year Award is a testament to the company's high quality standards, competitive pricing, and strict adherence to delivery deadlines, and also represents Boeing's high valuation of NIPPI's cooperative attitude toward their partnership – what is called "working together," as represented by its constructive proposals to Boeing.

* Kawasaki Production System. Based on the just-in-time manufacturing concept, the KPS uses Kawasaki's proprietary logical production management approaches developed and tested in-house on Kawasaki production lines. This system can be implemented in any production line, regardless of whether it is a mass-production or single-production line.



Award ceremony

Taiwan Taoyuan International Airport Access MRT System Commences Commercial Operations

Taiwan Taoyuan International Airport Access MRT System (the "Airport Line") commenced commercial operations on March 2, 2017. In January 2006, a consortium formed by Marubeni Corporation, Hitachi, Ltd., and Kawasaki were awarded the contract to supply the railway system



and construct depots for the Airport Line.

The Airport Line is the first airport link railway in Taiwan, with 51km length and 21 stations connecting Taipei City and the Zhongli District via Taoyuan International Airport, which more than 40 million people use per year. The Airport Line serves

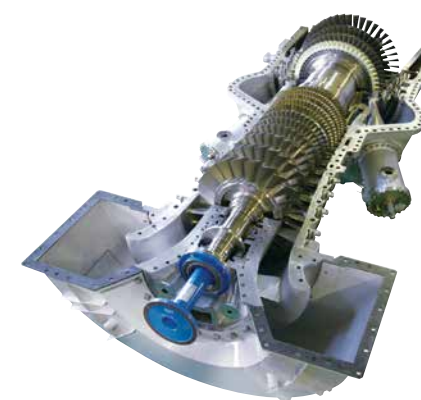
mixed operations of commuter trains and express trains, and has shortened travel time for residences along the Airport Line and has relieved traffic congestion. Passengers can further enjoy the in-town check-in services at Taipei Main Station, which provide the convenience of traveling without heavy luggage.

For this project, Marubeni was responsible for total project coordination, the sub-system of signaling communication system, and track work; Kawasaki was responsible for manufacturing the EMU (Electric Multiple Unit), and Hitachi was responsible for the substation systems.

Cogeneration System Project Construction Started in Uzbekistan

New Energy and Industrial Technology Development Organization (NEDO), Marubeni Utility Services, Ltd., and Kawasaki have launched a demonstration project on gas turbine cogeneration systems in Fergana, Uzbekistan.

After the construction work is completed, the installation and demonstration of equipment will proceed to introduce gas turbine cogeneration systems at two demonstration sites in Fergana up to the end of FY2020. The aim of the project is to realize energy savings of 38% compared to conventional systems, and also ensure a stable supply of power and heat.

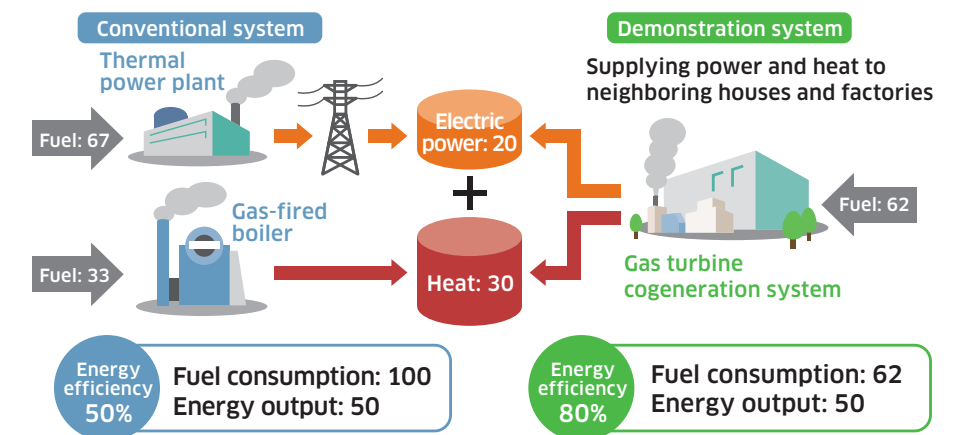


A stable supply of power is a pressing need in Uzbekistan against the backdrop of the country's growing economy. In the Fergana region, power demand is high due to the population concentration, but the power supply is dependent on a distribution system that transmits power from a distant area. A more decentralized form of power generation is required in the region.

Demonstration site



Image of Demonstration System



The values indicated above were calculated by assuming the fuel consumption at the Fergana RK-3 heat supply plant with a conventional system to be 100%