

# NEXT STEP FORWARD IN GAS TURBINE POWER AUGMENTATION

Apr 28, 2015

**SINGAPORE**, April 28, 2015 – Johnson Controls, a global multi-industrial company, launches YCP-2020, the first containerized Gas Turbine Inlet Air Cooling (GTIAC) mechanical based solution in the market. This new product offering expands the current portfolio of GTIAC solutions. The 8,000 kWth1 rated YCP-2020 is a containerized system comprising YORK® chillers, chilled and condenser water pumps, electrical starters and proprietary Metasys® control system. Its compact, modular design minimizes site space requirements, allows flexibility in layout configuration, as well as reduces shipping and logistics costs. This addresses critical challenges for existing and new build power plants.

Richard Buckley, director of industrial refrigeration, Johnson Controls Asia, said, “We evolved this containerized architecture as a result of extensive market research and stakeholder engagement. Having a pre-built, self-contained system, pre-commissioned and tested in a controlled factory environment is valuable to our customers. This is an important addition to our existing portfolio of GTIAC solutions and will definitely further differentiate us.”

The installed gas turbine2 power plant capacity is forecast to grow at an average Compound Annual Growth Rate of 7.5 percent across Asia. GTIAC solutions can enhance power output by up to 30 percent and efficiency by up to 4 percent. Mechanical based GTIAC solutions are more dependable than wet evaporative or fogging based ones. Fogging based approach has limited effectiveness in higher humidity conditions and cannot maintain fixed inlet temperature. These systems also require a continuous supply of demineralized water and care is needed to avoid corrosion.

Johnson Controls is now the only chiller manufacturer offering GTIAC expertise and packaging its own equipment into complete mechanical based GTIAC solutions. Its unique combination of expertise in industrial cooling equipment, process system integration and manufacturing expertise allows the company to optimize the whole GTIAC system, maximizing power output and fuel efficiency. It also offers extensive local OEM service support with about a hundred branches across Asia.

YCP-2020 will be manufactured, assembled and tested at one of Johnson Controls’ largest manufacturing facilities located at Wuxi in China. The Wuxi facility operates to the company’s stringent global manufacturing and supply chain quality standards, with a manufacturing capacity of 6,000 chillers per year. Not only does Johnson Controls have the world’s best industrial refrigeration brands, each with more than 100 years of history (YORK®, Sabroe® and Frick®), it has also been packaging process systems for many exacting markets, such as oil and gas, process and petrochemicals for over 40 years. The chillers have been used in GTIAC applications for more than 20 years to optimize gas turbine performance in power plants worldwide.

About Johnson Controls:

Johnson Controls is a global diversified technology and industrial leader serving customers in more than 150 countries. Our 170,000 employees create quality products, services and solutions to optimize energy and operational efficiencies of buildings; lead-acid automotive batteries and advanced batteries for hybrid and electric vehicles; and interior systems for automobiles. Our commitment to sustainability dates back to our roots in 1885, with the invention of the first electric room thermostat. Through our growth strategies and by increasing market share we are committed to delivering value to shareholders and making our customers successful. In 2014, Corporate Responsibility Magazine recognized Johnson Controls as the #12 company in its annual “100 Best Corporate Citizens” list. For additional information, please visit <http://www.johnsoncontrols.com> or follow [@johnsoncontrols](https://twitter.com/johnsoncontrols) on Twitter.

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**1 Kilowatt-thermal is a unit of heat-supply capacity used to measure the potential output from a heating plant.**

**2 Gas turbines are favored by utilities and generating companies in power generation and electricity sector for their economics. They are also considered the cleanest means to generate base load power when firing natural gas compared to coal or oil based fuels.**