

KAWASAKI LAUNCHES NEW
STATE-OF-THE-ART 30MW CLASS GAS TURBINE – KAWASAKI L30A

Kawasaki Heavy Industries, Ltd.

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INTRODUCTION

Kawasaki Heavy Industries, Ltd. (KHI) announces that it has recently completed the development of a 30MW gas turbine—Kawasaki L30A—the flagship model of its fleet. This new gas turbine, which has one of the highest efficiency ratings in the world in its class, will be launched in June 2012.

KHI's first industrial gas turbine was introduced in 1974 for stand-by use, and the first base-load model was launched in 1984. Since then, KHI has been developing and supplying both stand-by and base-load models to customers in the 150kW to 18MW range, and delivered almost 8,000 gas turbine generator units around the world. During this time, design improvements have contributed to higher efficiency with lower emissions to meet the global environmental protection requirements. Kawasaki is actively moving ahead to make further inroads into the 30MW class market with its state-of-the-art L30A gas turbines.

TECHNICAL FEATURES OF THE L30A GAS TURBINE

Combining Kawasaki's long-cultivated expertise in developing small- and medium-size industrial gas turbines and its highly sophisticated component technology in the area of aircraft engines, the L30A offers the following features:

- 1) A world-leading engine thermal efficiency of more than 40.1%, achieved through such improvements as a higher compressor pressure ratio, newly-developed heat resisting materials, and enhanced turbine cooling technologies.
- 2) A proprietary Dry Low Emission (DLE) combustion system for reducing NO_x emissions to below 15 ppm (O₂=15%)—the lowest emission level in the world in this class.
- 3) A modular structural design offering excellent maintainability, based on the latest technologies and know-how cultivated through the development of KHI's current and previous models. By adopting the optimal maintenance cycle proposed by KHI, life cycle costs will be significantly reduced.

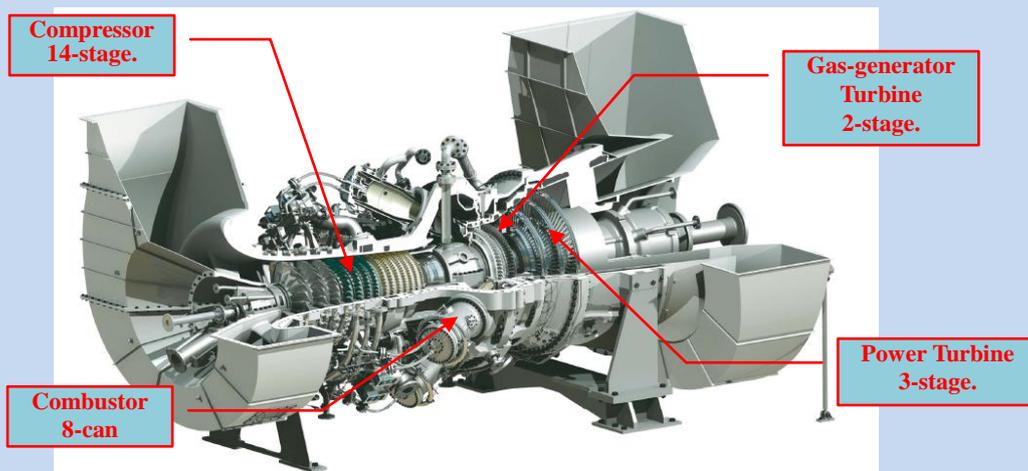


Figure.1 L30A Engine

Table 1: L30A Specifications

Type	Open cycle 2-shaft
Electric Output* (kWe)	30,120
Thermal Efficiency* (%)	40.1
Air Flow Rate (kg/s)	86.5
Pressure Ratio	24.5
EGT* (deg-C)	470

* ISO Conditions; Natural Gas Fuel

SUMMARY

In the worldwide market, the issue of energy security has become highly prominent and the need for on-site power generation has been increasing. This ever-increasing power demand requires more highly efficient machines, while also reducing emissions to match increasingly stringent environmental protection regulations. The L30A provides a flexible solution for such demands, and when combined with a heat recovery steam generator, it is the ideal gas turbine for use in combined heat and power and/or combined cycle applications.

KHI has installed the first L30A package in the domestic market in Japan, and expects to receive the orders from its international sales and marketing network in Europe, Americas, Asia, Middle East and Far East. KHI will extend its gas turbine business globally through the sales of the L30A, as well as its existing models.

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