

Second Laureate Research & Development



- ◆ **Project title:** Know-How Development and Mass Production of Casting, Machining and Coating of Gas Turbine Blade
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Abstract:

Feasibility study of Know-how and mass production of casting, machining and coating of gas turbine blade ordered by Iran Power Development Company (IPDC) and performed by MAPNA Turbine Manufacturing and Engineering Company was started in 2003. Following the feasibility study, a semi-industrial plant was launched, and various kinds of gas turbine blades were mass-produced in 2006.

Performing this project and creating mass-production chain of gas turbine blade requires development large number of technologies and information such as: investment casting of superalloys, quality control and testing methods, special machining methods, new diffusion and overlay coatings, heat treatment and post processings.

The novelty of this project has provided the country with an integrated and concentrated industry in manufacturing wide variety of blades. Another achievement of this project is fulfilling over 90 percent of power ministry needs.

