

Wave Rotor Test Rig Design Procedure For Gas Turbine Enhancement

WAVE ROTOR TEST RIG DESIGN PROCEDURE FOR GAS TURBINE
ENHANCEMENT

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Summary : Free wave rotor test rig design procedure for gas turbine enhancement pdf download - wave rotor technology has been in its development stages for close to a century now the complexity of the wave phenomenon and the computational difficulties were some of the biggest reasons why the technology hasn't gained prominence recent advancements in controls increased research in pressure waves and improved computational power has rejuvenated this fascinating technology in the quest for improving the efficiency of power generation devices while keeping emissions low wave rotors have a bright future wave rotors are essentially energy exchange devices that transfer energy between two media this body of research is focused towards the efficient design of a viable porting to be used on a test rig for gas turbine enhancement in the first part of this research an algebraic code developed at msu is described which can provide a porting geometry for any given operating condition while estimating the amount of exhaust gas recirculation the code was benchmarked using two commercial codes a one dimensional code gt-power and a two dimensional computational fluid dynamic code fluent the agreement between the codes shows the strength of the 1d algebraic code and how it can be used for the preliminary development stage the second part of this work deals with the future developments of wave rotors and the innovative designs that can be used to improve this technology

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blade mechanics seminar: abstracts - blade mechanics seminar: abstracts ... a typical hcf qualification test procedure is shown for a turbocharger turbine. ... aim of improving flexibility in gas turbine ...

aiaa 92-3220 current and to the national launch - relevant to the national launch ~ystem (nls) ... to measure in a test rig. this type of analysis performed early in a design procedure