



Third Laureate Research & Development

- ◆ **Project Title:** Honeycomb Seal Manufacturing for Aircraft Engines
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Abstract:

In aircrafts gas turbine (and other stationary gas turbines), blade materials expand under elevated temperature and centrifugal forces. Honeycomb seal part which is frequently used in aircraft industries is located between blades & turbine wall, and serves as an excellent gas flow seal and as a sacrificial wear-surface to rotary blades and other rotating elements. Honeycomb seal structure prevents turbine blades from clashing to turbine wall and retains the pressure and thus maintains the engine driving force at its optimal level. This project has been done in four main steps; honeycomb ribbon manufacturing, honeycomb assembling (brazing & welding) to the shroud, design special devices and final certification. Also, different destructive and non-destructive tests were performed to ensure the function of manufactured parts.