

## TECHNOLOGY FOR RAPID HEAT TREATMENT OF COMMERCIAL TITANIUM ALLOYS

### Areas of Application

The technology can apply to bulk or local/surface treatment of parts and products in aerospace, automotive, chemical, and defense industries as well as in the manufacture of medical devices, including implants

### Specification

The technology is based on rapid heating at a rate up to hundreds degrees per second, using sources of high energy, under very nonequilibrium conditions. Depending on the size and desired results, the articles can be heated by current passage, heat inductor, electron beam, laser, etc.



High-strength titanium fasteners for aerospace application

### Advantages

The technology enables the formation of unique microstructural states in different types of commercial titanium alloys, which ensure the physical and mechanical properties unreachable with any other kinds of treatment, namely, a combination of the highest static and dynamic strength and other high important properties



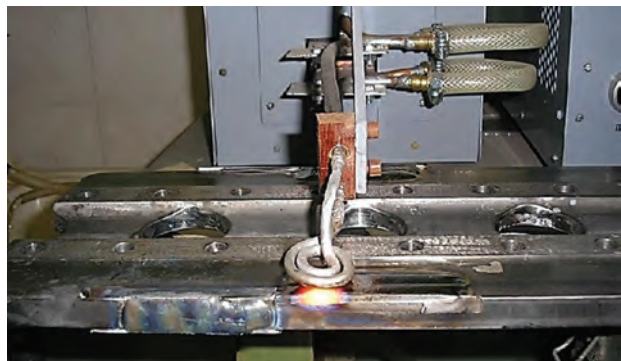
High-strength titanium springs for aerospace application

### Stage of Development. Suggestions for Commercialization

IRL7, TRL4  
Vending of patent based on license agreement

### IPR Protection

IPR1, IPR3, IPR5



Plant for rapid induction heat treatment of titanium products

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