

# PSM

a Hanwha company

## AVIATION

Our **Aviation and Aerospace** business line leverages over 20 years of PSM's experience in designing, developing and manufacturing service solutions for high-technology heavy-duty gas turbines used in the global power generation industry.



Whether providing thrust for an aircraft or generating electricity in a power plant, PSM's approach and commitment to finding innovative solutions for our customer's gas turbine assets remains our top priority.

### Engineering Services

With over 150 engineers on staff with years of aviation and aerospace experience, PSM offers a full suite of engineering services that supports development initiatives for OEM manufacturers, MROs and the DoD.

- + Turnkey Product Management
- + Reverse Engineering
- + Blue Light Scanning
- + Design Development
- + Manufacturing Support
- + Metallurgical Process Qualifications
- + Metallurgical and Failure Analysis
- + Prototype and Engine Test Hardware Development
- + Additive Manufacturing
- + Complete Suite of Analytical Tools to Support Design and Development
- + Rig Testing



## New Parts Manufacturing

With a dedicated team of manufacturing, process and quality engineers PSM has been manufacturing both cold and hot section components for over 20 years with demonstrated engine validation. We combine our in-house workshop capability with our extensive global supply chain to manage the entire development and manufacturing cycle.

- + Compressor Blades and Stators
- + Turbine Blades and Vanes
- + Fuel System Components
- + Advanced Combustion Systems
- + Rotor Components
- + Large Structural Components
- + Legacy or New Engine Platforms



## PSM Workshop Capabilities

The 105,000 sq. ft. PSM Jupiter, FL Manufacturing and Repair Workshop offers the following equipment and services:

- + 3, 4 and 5 axis CNC mills
- + Wire, Plunge and Fast Hole CNC EDM
- + CNC grinding
- + Large format horizontal boring mill
- + Manual lathes and mills
- + (2) Vacuum furnaces
- + Air circulating furnace
- + Fluoride Ion Cleaning (FIC)
- + Brazing services (including honeycomb)
- + Laser cladding and Laser welding
- + TIG, MIG and resistance welding
- + (2) Coating booths – HVOF, APS, Dual Wire Arc
- + Chemical stripping of MCrAlY Coatings, and ultrasonic and hot water wash cleaning
- + Media and bead blast
- + Vibratory finishing
- + NDT: FPI, digital x-ray, eddy current, ultrasonic inspection, airflow and moment weigh
- + Metallurgical Lab - Comprehensive metallurgical analysis, failure analysis/fractography, and scanning electron microscopy
- + Metrology Lab - Blue light scanning and CMM

## Cold & Hot Section Repairs

In today's highly competitive market, end users need to achieve peak performance while minimizing life cycle costs. PSM can help with a full spectrum of parts reconditioning services — all backed by PSM engineering and advanced technology. These state-of-the-art reconditioning services can extend the life of your components and optimize your maintenance budget.

- + Advanced process technologies: Laser welding, Diffusion brazing, FIC, Chemical stripping and APS/HVOF Coating
- + Complete machine shop services: CNC grinding, CNC milling, RAM & Wire EDM, EDM hole drilling
- + Complete NDT and metallurgical services on site: FPI, Digital X-ray, Scanning Electron Microscopy
- + Metrology: Blue Light Scanning, CMM



## Qualifications

PSM has a well established Quality Management System (QMS) and has maintained its ISO 9001 certification since 2002. PSM is currently certified to the ISO 9001:2015 standard by Lloyd's Register.

Since late 2018, PSM has been actively pursuing all the administrative and regulatory qualifications to become a new parts manufacturer and service provider in the Aviation Industry. In mid-2019, PSM achieved its AS9100D & BS EN ISO9100:2015 certification through National Quality Assurance Limited(NQA) .

Additionally, PSM maintains a government Cage Code and is ITAR Registered which enables PSM to actively bid on government and military contracts.



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