



## CONVENTIONAL ULTRASONICS

AAI provides comprehensive and reliable, production-based inspection services for critical structure materials. Our ultrasonic multi frequency scanning systems operate Pulse-Echo (PE) and Thru-Transmission (TTU). The cutting-edge ultrasonic inspection equipment at our facility accommodates versatility and reliable high throughput rates.

## COMPLEX CONTOUR FOLLOWING

In addition, our NDI scanners are capable of complex - contour following in all modes of operation. Our squirter based Gantry has a part envelop of 24' L x 7' W x 10' H and is outfitted with 4-pulsers, 6-receivers and 2-log amplifiers. Our universal part carts can accommodate many geometry styles as well as hold multiple parts during a single inspection. Our tooling group can easily fabricate special holding fixtures for customer parts to better facilitate the quality of inspection.

## PHASED ARRAY ULTRASONICS

Our NDI team also utilizes immersion-method phased arrays, an advanced ultrasonic inspection which offers uncompromised image clarity and probability of detection for the quality requirements of our customers. We offer our services to industries such as aerospace, industrial, military and infrastructure.



## Inspection Services Guide

## OUTSOURCING SOLUTIONS

The Arcadia Aerospace Industries Team offers manufacturers a reliable high-quality and self-managed alternative to in-house Non-destructive Inspection (NDI) and Portable Contour Measurement (PCMM) resources for component part inspections.

AAI offers diverse and extensive practical experience, application solutions, confidentiality and electronic part tracking infrastructures. In addition, AAI delivers a complete solution to its clients that can include application & machinery development, customization, parts handling, multiple shipset sorting, dedicated transportation containers & logistics as well as NDI integration support for outside trim facilities.



MT, PT, UT, ET, RT, MRO Partnerships. We can land & taxi in-service aircraft directly to our facility. Aircraft-On-Ground (AOG) NDI services available 24/7.

Certified CMM and NDT Equipment, Technicians and Level III Services available on contract, in Mobile Teams and in-house operations 24/7.



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Large Complex-Contour Scanning Gantry with 1 & 5 MHz Dual PE and TTU

## ENGINEERING & DESIGN SERVICES

Arcadia Aerospace certified professional designers have the tools to quickly develop designs, ideas, and concepts, then effectively implement them through the product research & development, marketing, and manufacturing /construction processes. AAI can provide the expertise to accurately deliver and integrate a project through rendering, animation, drafting, engineering, analysis and all manufacturing phases.

In addition, AAI designers can reverse engineer existing prototypes or a one-of-a-kind component and prepare it for new manufacturing techniques. These services can be utilized in antique restoration projects or other applications where a single component exists but with no drawings or models to manufacture from. AAI has tools across several platforms that provide clients with unrestricted editing, scaled 3-D solid modeling, 2-D drafting, annotation, and illustration. In addition, our design tools easily process 3-D surfaces into 2-D patterns for control of laser, plasma, CNC and water jet cutters. We can develop ideas and designs in 3-D, render for better illustration, utilize our CAD system for detailing and dimensioning or move directly on to CAM. Our compatibility allows clients to exchange or integrate files with other designs, drafting, CAM, engineering, analysis, animation, and illustration software.

## ABOUT US

Arcadia Aerospace Industries is a Florida based company, whose mission is to provide state-of-the-art inspection solutions by effectively utilizing the philosophies of high quality, advanced techniques, and customer service.

AAI's team is equipped to handle the rapidly changing demands the composites industry requires in Non-Destructive Inspection and Coordinate Measurement. The company has developed state-of-the-art automated systems that deliver solutions to the composite structural component market. In addition, our facility offers customers value-added engineering in QA, inspection and handling. We provide the solutions for application-specific inspection, helping manufacturers meet their rate commitments.

## CMM INSPECTION

We provide a number of measurement services that include part contour measurement, conformity to the original design engineering, tool and mold verification, hole dimensioning and verification, machinery alignment and certification. Our PCMM team includes a mobile group utilizing laser tracker and multi-axis arm systems to perform certification services directly at the customer site. In addition, our team can help manufacturers with GD&T, relationship fit modeling, reverse engineering and assembly applications.

## INDUSTRIES WE SERVICE INCLUDE:

- Assembly, Packaging & Fulfillment
- Re-Work Disassembly-Assembly
- Aerospace
- Automotive
- Chemical
- Civil
- Plastics
- Design Validation Engineering
- Drafting & CAD Part Conversion
- Electro-Mechanical
- EMI Shielding & Compliance
- Engineering Analysis
- Industrial Automation Design & Engineering
- Jig & Fixture Design & Engineering
- Machine Design & Engineering
- Manufacturing Engineering
- Marine
- Mechanical
- Model Making

- Mold Fabrication
- Power Transmission
- Presentation & Visualization
- Process Control Design & Engineering
- Process Development Design & Engineering
- Reverse Engineering
- Robotics
- Structural
- Tool & Die
- Virtual Product Development (VPD)
- General Fabricating
- Machining
- CNC Machining
- CNC Programming
- Rapid Prototyping, Tooling & Manufacturing
- Sheet Metal
- Material Testing & Inspection
- Part Testing & Inspection
- Welding & Joining

Phased Array instrumentation with Contour-Following immersion inspection capabilities.



In-House Surface Table Center

