

## NAICS Codes

335991: Carbon and Graphite Product Manufacturing

336412: Aircraft Engine and Engine Parts Manufacturing

336413: Other Aircraft Parts and Auxiliary Equipment Manufacturing

488190: Other Support Activities for Air Transportation

**DUNS Number:** 006152037

**CAGE Code:** 5Y101



## COMPANY OVERVIEW

*IKONICS Advanced Material Solutions (AMS) is a division of IKONICS Corporation (Nasdaq: IKNX), an imaging technology company headquartered in Duluth, Minnesota. AMS specializes in Precision Abrasive Machining (PAM), a non-traditional machining process.*

PAM can support a diverse array of features in a variety of materials such as carbon fiber, fiberglass, silicon, ceramics, infused silica, Kevlar®, Borofloat® and sapphire. PAM is excellent for producing perforations, blind perforations, cavities, and other geometric features over large surface areas. This is particularly true for array patterns where multiple perforations and/or other features are required. PAM allows for such features to be produced simultaneously, with ultimate precision.

This innovative process uses well-established technology to provide acoustical sound and weight reduction benefits to composites. PAM eliminates many of the issues caused by traditional machining methods.

## THE PAM PROCESS: ADVANTAGES & BENEFITS

- Clean hole edges without tooling marks, defects, burrs, spurs, burning or pulled fibers
- All holes/features present
- Will not cause de-lamination or other internal damage
- Any hole or feature shape can be produced, including slots
- Acoustically tuned parts through various hole size & shapes
- Precision positioning of holes/features and highly reproducible
- Complex curve capabilities
- Rapid turn-around time for design changes
- IKONICS Production in-house
- Dry Process – no chemicals or wetting required
- Parts ready for use right after process (no secondary process burring, or touchup needed)
- Compatible with popular industry-used brittle composite structures such as Carbon Fiber, Fiberglass and the like – including KEVLAR composites

## PAST PERFORMANCE

Since 2016 we have maintained > 99% compliance rate and a 100% on time delivery rating to LTA production customers.

## CUSTOMERS

- Applied Composites
- Applied Materials Inc.
- Bombardier
- CTL Aerospace
- Eurofins EAG Materials Science, LLC
- Fokker Aerostructures
- Honeywell Aerospace
- Meggitt Polymers & Composites
- GE Aviation
- GKN Aerospace
- IBM
- NASA
- NIST
- Northrop Grumman

- Penske Racing
- Pratt & Whitney
- Quiet Technology Aerospace
- Phoenix Composite Solutions, LLC
- United Airlines

## SUPPORTED PROGRAMS

### Airbus A320 P&W Engine Inlet Fan Case Liner

- Provide blast process for acoustic perforations and trim.
- Blast process approved by KHI, Japan. 2012 to present.

### Airbus A350 AGS Plenum

- Provide imaged masks to support customer blast process.

### Bombardier C-Series, P&W Engine Fan Case Liner

- Provide blast process for acoustic perforation.

### Bell Relentless 525

- Provide blast process for weight reduction and replacement of inlet screens on helicopter fairings.

### Embraer E-170 P&W Engine

- Provide blast process for acoustic perforations and trim of engine liners.

### Bombardier C-Series and Mitsubishi Regional Jet P&W Engine Liners

- Provided blast process for acoustic perforations. Program moved to Japan.

### Other Supported Programs

- Challenger CH300
- Falcon F2000
- Gulfstream G200
- Lear L60



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An IKONICS Company ISO 9001 Certified ITAR Compliant NASDAQ Listed: IKNX

# Combining innovation and reproducible quality



## OUR MISSION

To be the preferred service provider of precision machining of composites, wafers and other brittle materials.



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