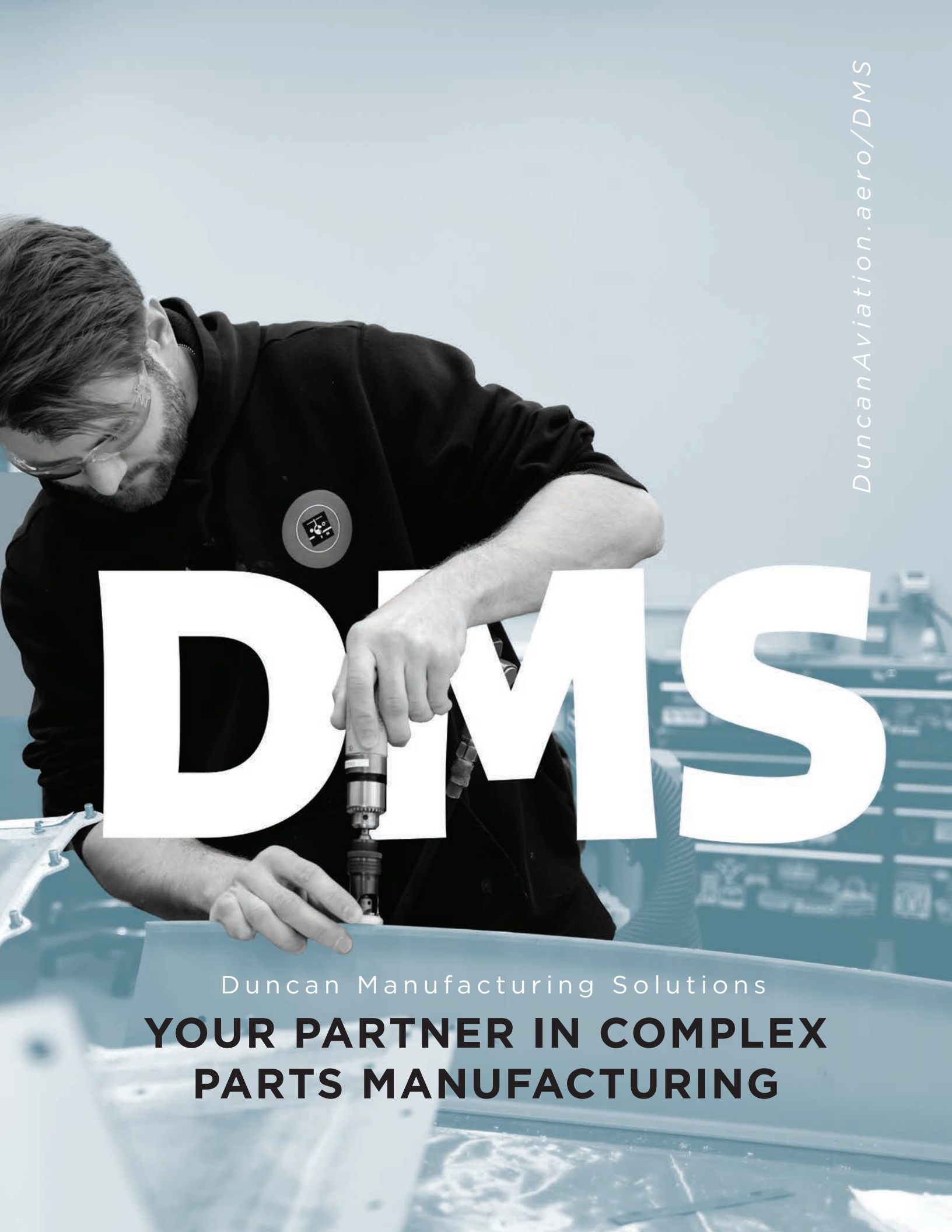
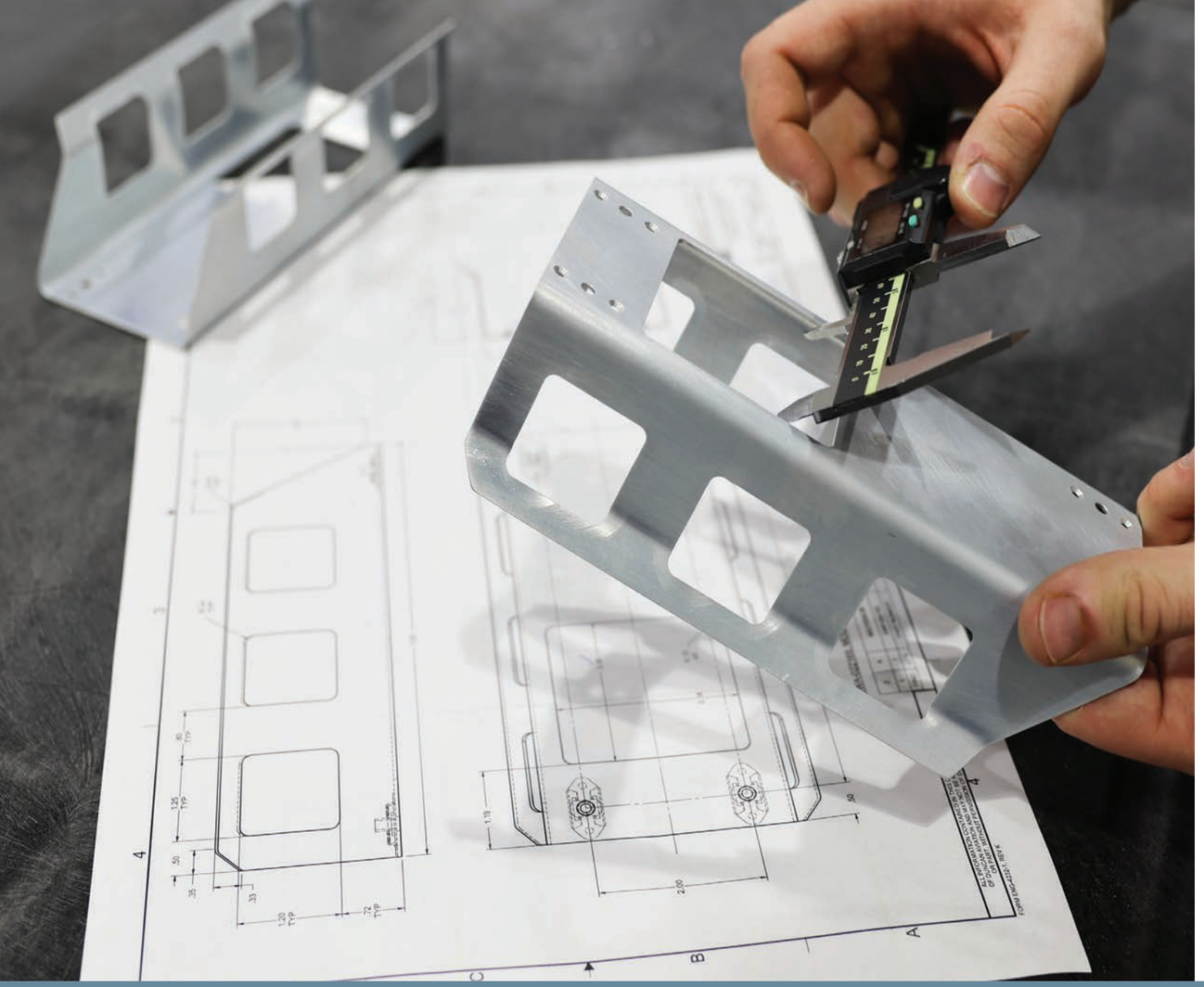


DuncanAviation.aero/DMS

DMS

Duncan Manufacturing Solutions

YOUR PARTNER IN COMPLEX PARTS MANUFACTURING



PRECISION PARTS

For Diverse Industries

In today's demanding industrial landscape, manufacturers across sectors face continuous pressure to innovate, uphold rigorous quality standards, and optimize costs. Partnering with a specialized job shop operation like Duncan Manufacturing Solutions offers a significant competitive advantage. While DMS traces its roots to supporting the stringent fabrication needs of Duncan Aviation, it has evolved far beyond the aviation sector. Today, DMS is a trusted partner not only for aviation OEMs but also for a wide array of other industries that require complex, demanding manufacturing solutions.

By providing specialized expertise, flexible capacity, and cost-efficient processes—including precision machining, advanced composite repairs, and custom component fabrication—DMS enables OEMs across all industries to streamline operations and focus on their core business, driving long-term innovation and success.

Streamline Your Fabrication Processes

Maintain Operational Efficiency

Stay Focused On Your Core Strengths

Duncan Aviation complements its MRO services with industry-leading manufacturing and engineering solutions.

CERTIFIED BY SCB

AS9100D ISO 9001 ™

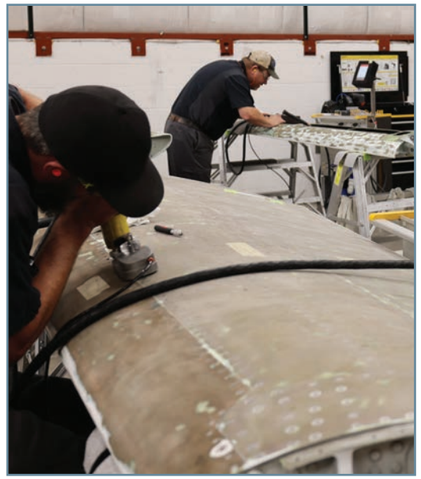
Certificate #1116405

CYBERSECURITY MATURITY MODEL CERTIFICATION

Level 2

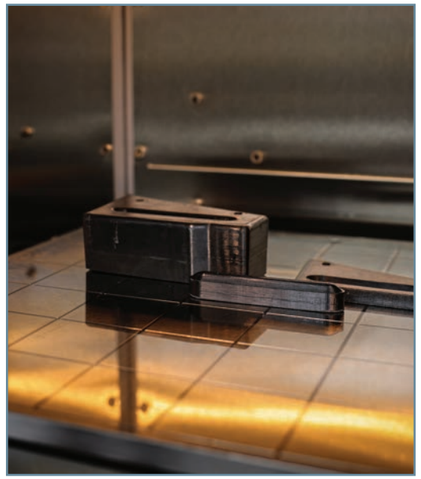
CORE MANUFACTURING

Services and Advantages



SPECIALIZED AEROSPACE MANUFACTURING

With more than 40 years of experience with FAA PMA (Parts Manufacturing Approval), DMS brings deep technical expertise, particularly critical in the aviation sector, where strict regulations and advanced materials require precise handling. DMS's capabilities extend from structural supports to intricate interior components, demonstrating versatility across applications.



OUT-OF-PRODUCTION AND CUSTOM PARTS

Aging equipment and custom projects often call for solutions beyond off-the-shelf technologies. DMS specializes in reproducing out-of-production parts or designing unique custom components to exacting specifications. From small-batch runs to high-volume production, DMS delivers ready-to-install solutions, covering everything from prototyping through final assembly.



OEM PARTNERSHIP BENEFITS

By outsourcing to DMS, OEMs avoid the heavy capital investment of building in-house fabrication facilities while gaining faster turnaround and scalable production. This approach not only helps OEMs meet tight deadlines but also keeps projects on budget.



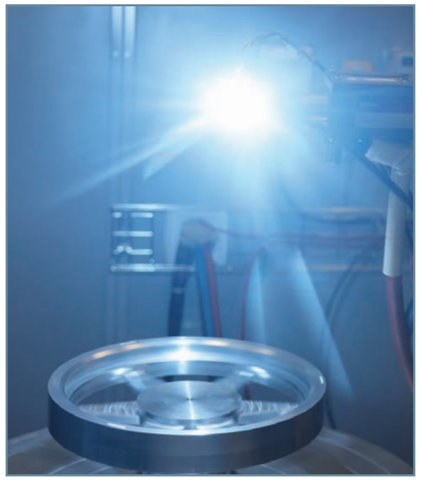
QUALITY AND INDUSTRY STANDARDS

DMS holds AS9100D and ISO 9001:2015 certifications. These globally recognized standards demonstrate DMS's commitment to rigorous quality management systems, specifically aligned with aviation and government manufacturing requirements. Certifications cover sheet metal, composites, precision machining, and specialized finishing processes, ensuring confidence in every part delivered.

ADVANCED FABRICATION

Capabilities and Technologies

DMS combines modern equipment with specialized processes to shape and strengthen complex components.



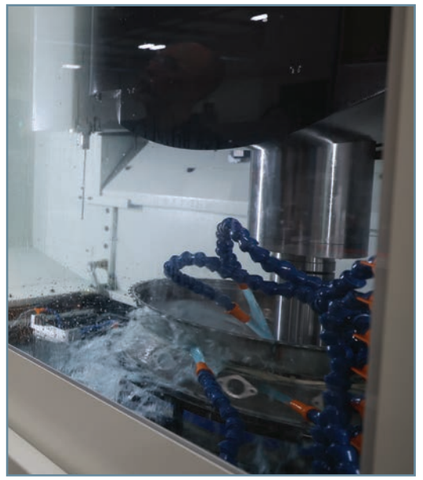
SURFACE TREATMENT AND REPAIR

- **Plasma Spray:** Adds durable material layers to components, extending part life and enabling repair rather than costly replacement.
- **Shot Peen:** Two fully robotic, programmable Wheel Abrator Peening Cabinets, one for shot/cast blast and one for glass peening provide precise restoration with high accuracy.
- **Bead Blast:** Cleans and restores surfaces, effectively removing corrosion and reaching fine details.



FORMING, SHEET METAL FABRICATION, AND HEAT TREATING

- **Sheet Metal Fabrication:** Flat components of varying thicknesses are precision-cut using an Omax 60120 Waterjet, ensuring accuracy and versatility.
- **Forming:** A John Shaw Rubber Pad Press (435 tons of vertical pressure) and Accurpress 7606 Press Brake shape aluminum and other metals into precise forms.
- **Heat Treating:** Two Delta H ovens accommodate aluminum, stainless steel, titanium, and tool steels, bringing parts to their required temper and strength.



COMPOSITE AND ADDITIVE MANUFACTURING

- **Composite Repairs:** A positive airflow clean room and large-scale paint booth support advanced composite repairs and new part production.
- **3D Printing & Prototyping:** Stratasys Fortus 450mc accelerates mold creation, reduces tooling costs, and supports FAA-compliant materials. Prototypes and fixtures are produced quickly, shortening lead times.
- **Thermoforming Molds:** Naturally porous printed molds streamline Kydex component production, minimizing risks and cycle time.
- **Hollow Core Composites:** Soluble tooling enables lightweight, complex composite structures with ease.



PRECISION MACHINING AND GRINDING

- **CNC Milling & Turning:** HAAS mills, lathes, and laser engravers deliver precise, efficient machining of intricate parts.
- **Grinding:** High-accuracy grinders for inner and outer diameters, shims, and spacers ensure exceptional tolerances.

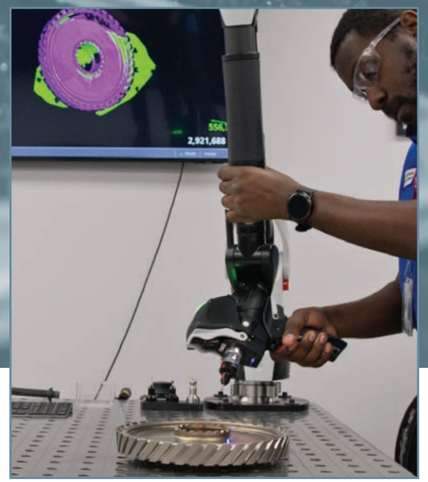
COMMITMENT

To Quality



COORDINATE MEASURING MACHINE (CMM)

Ensures every manufactured part meets dimensional and tolerance specifications.



PORTABLE METROLOGY ARM:

Supports mobile inspections, first-article validation, and reverse engineering.

KNOWLEDGEABLE

and Experienced Manufacturing Professionals

In the fast-paced world of aerospace manufacturing, adaptability and precision define success. At Duncan Aviation, our fabrication and repair team operates at the intersection of a traditional job shop's flexibility and the aerospace industry's uncompromising standards. With decades of experience supporting the MRO sector, we've built a workforce that thrives under pressure—producing one-off and short-run parts with the speed, accuracy, and traceability demanded by flight-critical applications.

Our FAA PMA authority, AS9100D, and CMMC (Cybersecurity Maturity Model Certification) Level 2 reflect more than compliance. They demonstrate a proven ability to execute complex work in a tightly regulated environment and safeguard sensitive unclassified information. Whether fabricating specialized components, supporting urgent AOG needs, or handling government defense contracts, DMS technicians combine the craftsmanship of a precision job shop with the discipline of aerospace production. The result: efficient, reliable solutions that keep aircraft in service and customers confident in every part we deliver.

Regulated Environment and Data Safeguards

Adaptability and Precision Defined Success

Efficient and Reliable Solutions

Duncan Aviation is the largest privately-owned business jet service provider in the world with complete Maintenance, Repair, and Overhaul service offerings at three US facilities.

DuncanAviation.aero/DMS

PARTNERSHIP

and Industry Work

From prototype through production, DMS offers tailored, high-quality solutions for complex parts manufacturing. More than a vendor, DMS builds lasting partnerships with customers, combining technical expertise, responsive service, and collaborative problem-solving.

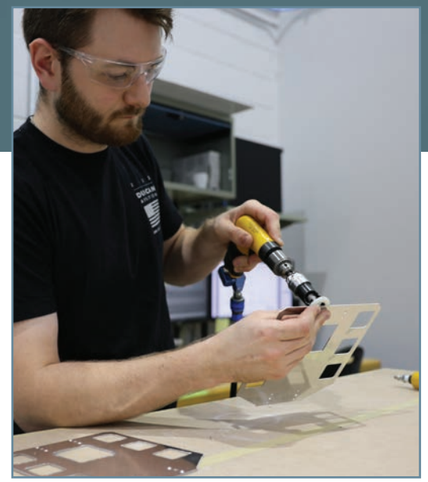
Whether the need is a single custom component or a large-scale production run, DMS delivers consistency, precision, and trust.

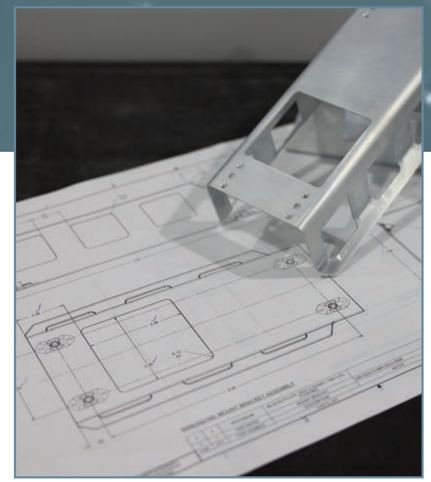
Build Lasting Relationships

Duncan Manufacturing Solutions is ready to collaborate on your next project. Contact us for questions, technical discussions, or a detailed quote.

DMS.Scheduling@DuncanAviation.com
+1 402.479.1651









DMS FACILITY

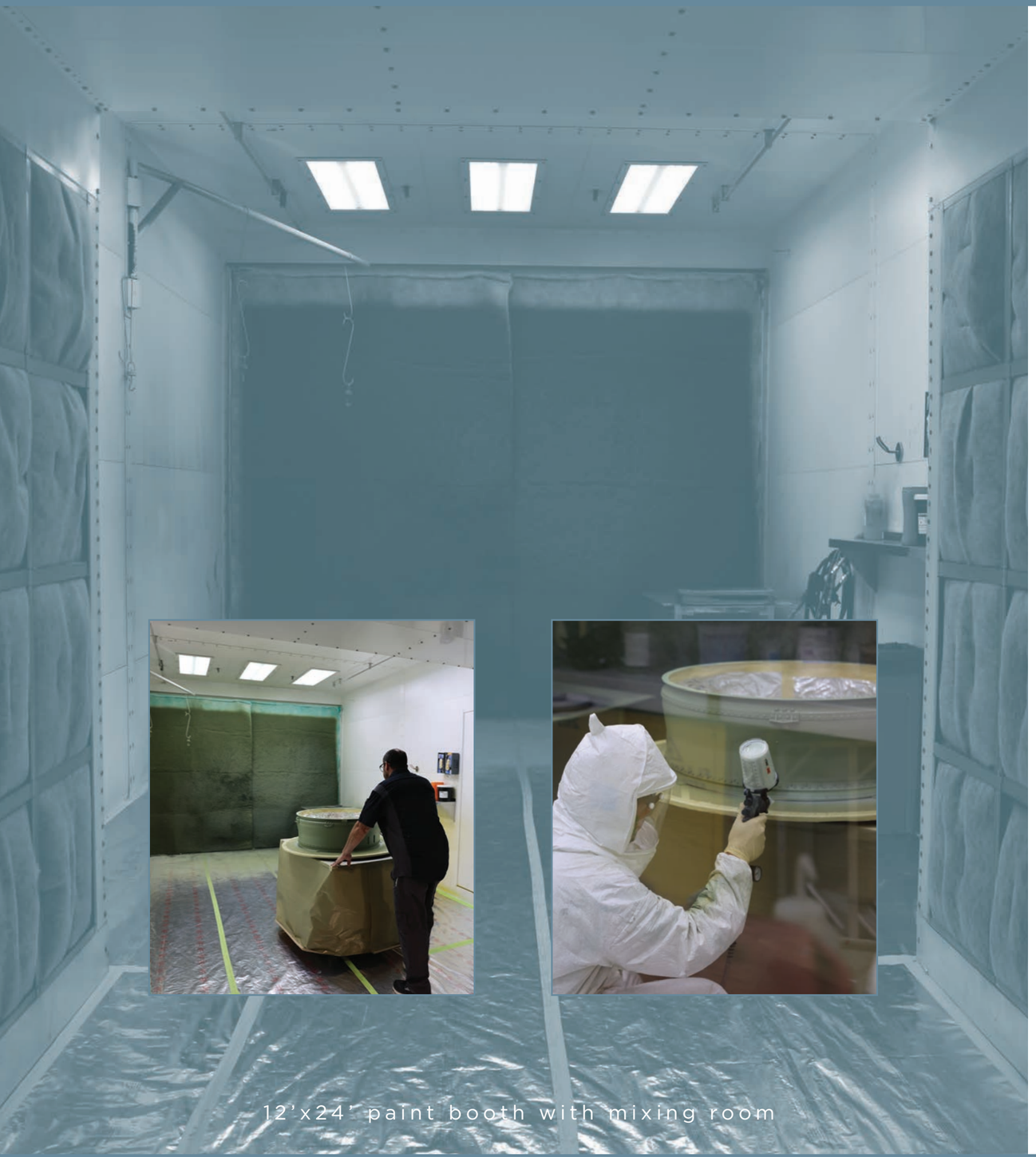
and Tooling

Headquartered in Lincoln, Nebraska, our 21,000-square-foot, climate-controlled DMS facility supports DoD aircraft maintenance and manufacturing within a secure, fully controlled environment featuring restricted access and strict entry.



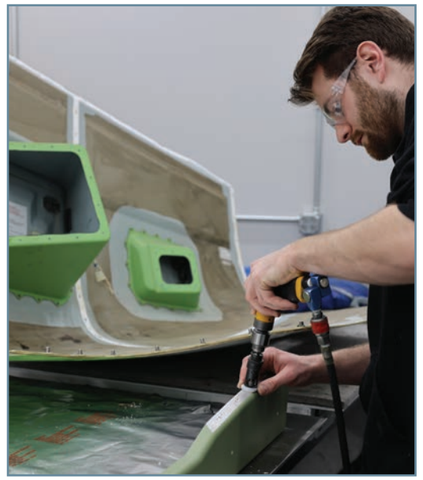
FABRICATION & MACHINING

- Accurpress 7606 – 60 ton 6’ Pressbrake
- Atrump B3FC Tool Room CNC Bed Mill 3 Axis
- Epilog Fusion Pro 48 – Dual Laser Engraver (Co2-Fiber)
- HAAS VF-5SS Vertical Machining Center 3 Axis
- HAAS VF-6 Vertical Machining Center 3 Axis
- HAAS UMC750 Universal Machining Center 5 Axis
- Omax 60120 Waterjet
- HAAS ST-30Y Live Tool Lathe with Automatic Bar Feeder
- Delta H SCAHT-161624-2000, Single Chamber Heat Treating Furnace – Full compliance to AMS2750E. 2000 °F
- Delta H DCAHT-241672-1200/500, Dual Chamber Heat Treating Furnace – Full compliance to AMS2750E (Aluminum, PH Stainless, Tool Steel, Titanium, etc.)
- Shaw Rubber Pad Press with 435 tons of vertical pressure
- STRATASYS Fortus 450 MC 3D printer 10”x14”x16” build volume
- Fast Track Tool Control System Inventory



12’x24’ paint booth with mixing room

A state-of-the-art, positive airflow composite shop, complete with a clean room and paint booth, supports prepreg composite repairs and manufacturing.



COMPOSITE

- Prepreg composite repair capabilities in positive pressure, climate-controlled clean room
- Inspire inspection software
- Rockwell hardness tester and surface roughness finish tester



IN-HOUSE QUALITY CONTROL/INSPECTIONS

- Olympus Epoch 1000 Phased Array Scanner
- Zeiss Contura Coordinate Measuring Machine equipped with an articulating sensor and multi-axis capabilities for complex angles and contoured shapes
- Hexagon Absolute 7-Axis Faro Arm Coordinate Measuring Machine (X, Y, & Z Axis Measuring)
- Domino AX350i Part Marking Printer

DUNCAN
AVIATION

Duncan Manufacturing Solutions is ready to collaborate on your next project.
Contact us for questions, technical discussions, or a detailed quote.

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