



Dan Lehman, President
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Capability Statement

1. Executive Summary & Core Value Proposition

Air Dynamics is a Veteran-Owned Small Business (VOSB) specializing in the engineering, design, manufacturing, and deployment of industrial air purification, contamination control, material recovery, and environmental testing systems. We provide custom-engineered solutions for government agencies, military installations, industrial manufacturers, research laboratories, and critical production facilities throughout the United States.

Our expertise includes industrial dust collection, process exhaust systems, central vacuum systems, air scrubbers, foreign object debris (FOD) control, resource recovery systems, and environmental test chambers. Air Dynamics helps organizations improve worker safety, environmental compliance, product quality, operational reliability, and facility performance through engineered solutions tailored to specific process requirements.

2. Core Technical Competencies

Industrial Ventilation & Process Exhaust Systems
• Source-capture ventilation and contaminant control • Process exhaust systems for manufacturing and industrial operations • Chemical fume, particulate, and airborne contaminant management • Airflow engineering, CFD modeling, and system optimization
Advanced Dust Collection & Particle Control
• Combustible dust mitigation and containment • Multi-stage filtration and HEPA systems • Source-capture collection systems • OSHA, NFPA, EPA, and ACGIH-compliant designs
Industrial Vacuum & Material Recovery Systems
• Centralized industrial vacuum systems • Portable vacuum solutions • Foreign Object Debris (FOD) control • Material conveyance and resource recovery systems
Air Purification & Environmental Control Systems
• Industrial air scrubbers • Process air cleaning systems • Contamination control solutions • Indoor air quality improvement systems.
Environmental Testing & Simulation Systems
• Temperature and humidity chambers • Thermal shock and environmental stress testing • Custom environmental simulation chambers • Product qualification and validation systems
Engineering & Technical Services
• System design and engineering • CFD modeling and airflow analysis • Manufacturing and fabrication • Installation support, commissioning, and performance verification



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Specialized Manufacturing Expertise

Air Dynamics supports a diverse range of industries, including:

- Aerospace and Defense;
- Electric Vehicle and Battery Manufacturing;
- Semiconductor and Electronics Manufacturing;
- Food and Beverage Processing;
- Chemical and Industrial Processing;
- Advanced Manufacturing;
- Government and Military Facilities;
- Research and Development Laboratories; and
- Environmental Testing Facilities.

3. Demonstrated Performance

Our engineered systems are deployed across mission-critical military installations and Tier-1 defense manufacturing facilities:

Customer / Agency	Application / Process	Technical Scope of Supply & Impact
Government & Defense		
Naval Surface Warfare Center (Panama City)	Advanced composite repair operations	Turnkey engineering, structural fabrication, installation, and commissioning of a specialized dust-control containment booth.
Seymour Johnson Air Force Base	F-15 Radome repair & refinishing	Designed and deployed a progressive-media dust extraction booth optimized for fiberglass sanding and volatile primer-removal operations.
Tinker Air Force Base	Aircraft preparation & surface sanding	Engineered high-capacity dust collection systems meticulously mapped to NFPA and ACGIH safety thresholds.
Aerospace & Aircraft Support		
VT San Antonio Aerospace	Large-scale aerospace manufacturing	Engineered an industrial, high-volume airflow dust-control booth integrated with multi-stage HEPA filtration arrays.
Aerometals	Carbon fiber & fiberglass grinding	Engineered a push/pull dust containment booth featuring automated pulse-jet filter cleaning, touchscreen PLCs, and explosion-proof components.
Composite Manufacturing & Combustible Dust		
BAE Systems	Robotic aluminum GMAW welding for defense components	Engineered an HVAC resource-recovery and air pollution control matrix that reduced localized ozone exposure by >89% under continuous 24/7 production parameters.
U.S. Fiberglass Composite Manufacturer	Composite finishing & advanced material processing	Engineered a source-capture dust collection system utilizing ActiveWall™ technology to mitigate explosive combustible dust hazards, control airborne particulate migration, and eliminate worker exposure concerns.



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4. Aerospace & Defense Applications

Industry Segment	Typical Applications	Air Dynamics Solutions
Aerospace & Defense Manufacturing	Composite processing; welding; surface preparation; contamination control; qualification testing Dust collection; industrial vacuum systems; FOD control; process exhaust systems; environmental test chambers	Dust collection; industrial vacuum systems; FOD control; process exhaust systems; environmental test chambers
Government & Military Facilities	Facility modernization; maintenance operations; contamination control; testing laboratories	Industrial vacuum systems; dust collection; environmental testing systems; FOD control
Advanced Manufacturing	Production processes; material handling; particulate control; worker safety	Dust collection; process exhaust; air scrubbers; resource recovery systems
EV & Battery Manufacturing	Electrode production; material handling; contamination control	Dust collection; vacuum systems; particulate containment; environmental controls
Semiconductor & Electronics	Clean manufacturing environments; contamination-sensitive processes	Vacuum systems; particulate control; environmental testing chambers
Food & Beverage Processing	Ingredient handling; sanitation support; dust control	Industrial vacuum systems; dust collection; air purification systems
Chemical & Industrial Processing	Process emissions; material recovery; environmental compliance	Scrubbers; exhaust systems; resource recovery; air pollution control systems
Research & Testing Laboratories	Product development; qualification testing; validation	Custom environmental chambers; environmental simulation systems

5. The Air Dynamics Advantage

- Veteran-Owned Small Business (VOSB);
- Engineering-driven solutions tailored to operational requirements;
- Custom-designed systems rather than catalog equipment;
- Extensive experience supporting government, military, and industrial facilities;
- Expertise in OSHA, NFPA, EPA, ACGIH, and MIL-STD requirements;
- Single-source responsibility from engineering through commissioning;
- U.S.-based engineering and manufacturing;
- Proven performance in mission-critical and regulated environments; and
- Long-term technical support and lifecycle partnership.



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6. Composite & Advanced Materials Experience

Material / Process	Demonstrated Experience
Fiberglass Composites	Sanding; trimming; de-flashing; cut-ins; finishing operations
Carbon Fiber Components	Grinding; sanding; particulate capture; contamination control
Aircraft Composite Repairs	F-15 radome repair and refinishing operations
Composite Manufacturing Facilities	Dust collection; source capture; HEPA filtration; industrial ventilation
Combustible Composite Dust	DHA-driven mitigation strategies; NFPA-focused engineering controls
Product Quality Improvement	Reduction of airborne particulate contamination affecting finished products

7. Corporate Identity & Procurement Data

Category	Details
Legal Entity	Air Dynamics Industrial Systems Corporation
Headquarters	York, Pennsylvania, USA
Core Markets	Aerospace; Defense; Government; Food & Beverage; Industrial Manufacturing
Primary Services	Industrial Ventilation; Dust Collection; Industrial Vacuum Systems; Air Scrubbers; Environmental Testing
Delivery Model	Design; Engineering; Manufacturing; Installation Support; Commissioning
Socioeconomic Status	Veteran-Owned Small Business (VOSB)
Geographic Coverage	United States
Manufacturing Origin	100% Made in the USA
Certifications	Add as applicable
CAGE Code	3EXT1
Primary NAICS	333413 – Industrial and Commercial Fan and Blower and Air Purification Equipment Manufacturing
UEI	PPG1EWQU5N35
Regulatory Reference Frameworks	OSHA, NFPA, EPA, ACGIH, MIL-STD