

Detroit Engineered Products (DEP), is an engineering services, product development, software development, consulting & talent acquisition company. Since its inception in 1998 in Troy, USA, DEP is now a global company with footprints in Europe, China, Korea, Japan, and India. DEP uses the accelerated and transformed product development process, accomplished by utilizing our proprietary platform, DEP MeshWorks, which rapidly reduces the development time of products for all industry segments. With a major realignment happening in priorities & investments for the Aero industry, DEP's advanced engineering & technology suite is aiming to help commercial, cargo & defense aircraft manufacturers achieve sustainable operations while keeping their financial charts healthy and positive.



Combining the in-depth engineering knowledge gathered over decades with innovative tools & a passionate expert team, DEP's A&D services support, new product development initiatives, improvements and enhancements to current products, investigate issues and propose alternative design solutions. Our engineering methodologies majorly focus on optimizing the aero product in terms of cost & weight and drive innovation. We perform comprehensive engineering analysis of FEA, Thermal & CFD study, multi-body dynamics & multi-physics simulation, and load calculations of fatigue and damage tolerance, vulnerability, vibration, and aerodynamics for every aero part like engine, wings, landing gears, etc. The R&D programs and the depth & breadth of engineering competence along with the blend of expertise make DEP, the engineering firm of choice to work even for Unmanned Aerial Vehicles (UAV) and Urban Air Mobility (Future Flight Market) projects.

DEP's capabilities also includes process optimization to increase productivity, avionics/electrical system design & development, and improved MRO (Maintenance, Repair & Overhaul). We endeavor to be at the forefront of all new technology boundaries in the A&D industry and are a highly client-focused company with our efficient systems and state-of-art technology set-up. We aim to support Aerospace OEMs & Tier 1 suppliers to maximize ROI, meet compliance standards, and stay competitive without compromising the go-to-market rate, product availability, and quality excellence achieved through increased efficiency.



AEROSPACE SOLUTIONS

DOMAIN EXPERTISE

- Structures
- Electrical Harness
- Interiors
- Composites
- Systems
- Flight Dynamics
- Avionics
- Manufacturing Support
- Tool Design
- Technical Documentation

ENGINEERING EXPERTISE

- Design
- Analysis
- Verification
- Validation
- System Integration
- Test Support
- In Service Support

TOOL EXPERTISE

- CATIA V5
- Unigraphics
- Pro-E
- Dvise
- ICEM CFD
- Fluent
- Ansys
- Nastran/Patran

System Installation Design

- Concept studies
- Fuel system
- Flight controls
- Door system
- Air distribution
- Flight test installation

Fuselage

- Cockpit structure design
- Flight deck integration
- Barrel & Floor
- Tail Bumper

Interior Design

- Concept design and analysis
- Crash worthiness
- Fire worthiness
- Cabin safety

Wing Structures

- Wing & attached structure design
- Concept and trade studies
- Structural integrity analysis

Landing Gears

- Structure & systems integration
- In-service issues
- Maintenance & improvements

Civil & Military Engine

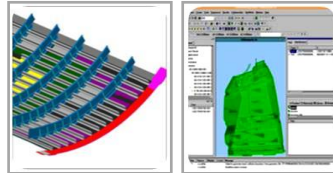
- Compression & transmission systems
- Welding intelligence
- Fan frame integration,
- Composites structures
- Design studies



Focus Areas

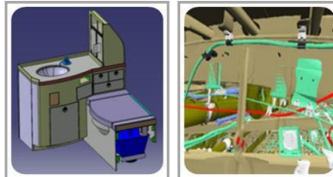
Structures

- Design Support
- Analysis
- In Service Support



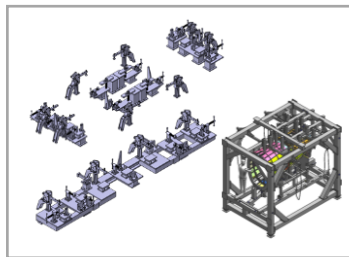
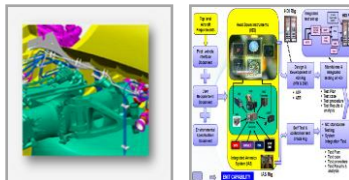
Electrical Harness

- Routing Design
- Space Allocation Model
- System Frontier Model



Systems

- Requirement Specifications
- Analysis
- Integration
- Test Support
- Verification & Validation



DMU Clash Analysis

- Clash Detection
- Clash Analysis

Interiors

- Concept Design
- Layout
- Material Selection
- Detailed Design
- Support to Finishing Center

Non Specific Design

- Avionics
- Electrical
- Aircraft Systems
- Flight Test Support

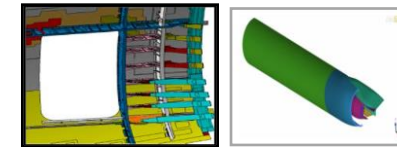
Tool Design

- Assembly fixtures
- Welding fixtures
- Checking fixtures
- Machining fixtures
- Transport fixtures
- Press tools

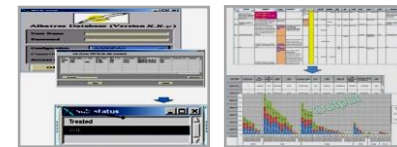
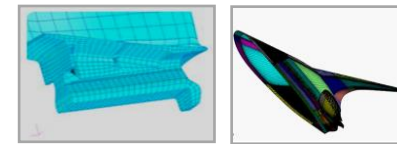
Tool Based Expertise



CATIA V5
UG-NX
PRO-E
Dvise



Hypermesh
Nastran
Patran
Ansys
Fluent
ICEM CFD



Cerbere
ELAN
AIRNAV
TRS
IBM 65

Scope of Services

Systems

Packaging

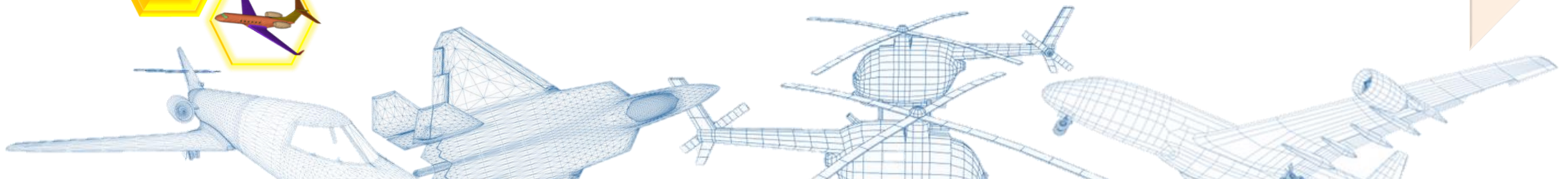
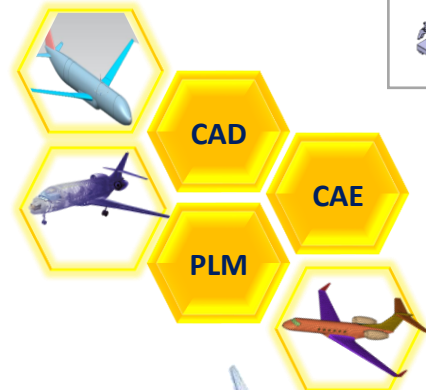
Detailed Design

Digital Mock-Up

CAE & CFD Validation

Technical Documentation

In-Service Support



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