CapabilityOverview

We can transform your products and business through Engineering and the power of Computer Aided Design (CAD)





We combine technical skills with industry experience to help you create new opportunities.

About us

Jones Design Solutions was established in 2007. We are a hands on business with a proven track record having provided engineering expertise and creative designs for a number of companies in diverse sectors. We have a passion about design and aim to provide our clients with the best engineered solution possible in a Professional and Competent manner.

We understand mechanical engineering from a practical perspective. We can help deliver the complete design solution from Concept to Manufacture.

Services

Our comprehensive services cover all aspects of engineering from concept design to manufacture. We help you transform your ideas into viable products regardless of your industry sector or where you are currently in your product lifecycle. We can help you to realise your vision and refine your ideas in line with your market.

Capabilities:

- 3D design
- Simulation
- 2D production drawings
- Manufacturing cutting data
- Photo-realistic rendering
- Prototyping
- Manufacturing support

Business Values

We offer a tailored approach when working with clients, but always maintain our core values.

Values:

- Open and clear communication
- Attention to detail
- Solution focused
- Proactive
- Innovative and creative
- Accountable and responsible
- Competitive

Industry Experience

We have over 30 years design and manufacturing experience working in Aerospace, Defence, Agriculture and General Engineering for high-profile companies such as:

- Rolls Royce 2 yrs
- Airbus 12 yrs
- Safran 1½ yrs
- GKN Aerospace 2½ yrs
- Sogeclair 2 yrs
- Strachan & Henshaw (Now Babcock) 6½ yrs
- Westland Helicopters (Now Leonardo) 1½ yrs

Competencies:

- Concept design to manufacture
- Fabrication and Sheet metal bending
- Machined components
- Structural steelwork
- Composites
- Aircraft Structures and Cabin interiors
- Test rigs
- General engineering
- Non-conformance engineering







Technical Tools

We are highly proficient in the use of Solidworks and run all our projects on a fully licenced version of Solidworks
Premium. SolidWorks Premium is an industry leading computer aided design (CAD) software package that allows us to create, simulate, publish, and manage 3D models efficiently with tools for conceptual design, product layout, strength and dynamics analysis, and much more.

We have the technology required to optimise your design and marketing, combined with the expertise needed to deliver innovative solutions.

Key Areas of Solidworks:



3D Solid Modelling



2D Drawings



Collaborate and Share



Interference Check



Simulation (FEA)



Photo-realistic Rendering



Manufacturing

Our Process

We follow an established 7 stage engineering design process using clear communication, careful analysis and our industry experience. From the initial concept to the final realisation, our process delivers comprehensive solutions across all stages of the design.

Design Process:



Identify the Problem and Constraints

01



Research the Problem

02



Develop Possible Design Solutions

03



Select Most Promising Design and Develop

04



Manufacture the Prototype

05



Test and Evaluate the Prototype

06



07

We have the vision and expertise for you to succeed.

Why businesses invest in CAD?

Increase in productivity CAD can increase productivity by up to 10 x. Improvement in accuracy

Manual sketching cannot measure up to the accuracy of CAD. **Decrease in errors**

- Simulation analysis
- Collision and interference detection - Hole alignment and thread checks

Better quality

More aesthetically pleasing designs due to easy model iteration legibility and fewer errors in drawings.

Ease of understanding

- The availability of 3D models to accompany 2D drawings
- Photo-realistic views of the product for customers, marketing etc.
- Quick sharing and collaboration
 Import/Export over 30 file formats.
- Creation of manufacturing data directly from the model
 - Accurate cutting lists
 - Routing, laser cutting files

Why work with us?

- Over 3 decades of design engineering experience working with SME's and large prestigious global companies in various sectors.
- We are very comfortable working independently or alongside your designers and manufacturers.
- Strong relationships with manufacturers.
- Background and knowledge to successfully overcome design and manufacturing challenges.
- We use and are highly proficient in the use of SolidWorks an industry leading CAD software.
- Photo-realistic views of your design enabling you to:
 - Better engage with your clients
 - Produce marketing material
 - Create material for potential investors
- We are fully covered by Professional Indemnity insurance.

PROJECT	CLIENT	LOCATION	SCOPE
AIRBUS A380 Wing Landing Gear Test Rig			
	AIRBUS LTD — Mechanical Laboratory	Filton, Bristol	Design of a test bed to assess the wing landing gear rib and surrounding structure statically and dynamically in all load conditions.
AIRBUS A400M Fuel Test Rig			
	AIRBUS LTD – Fuel Test Facility	Filton, Bristol	Design of test bed to support and articulate the full scale A400M centre wing box, wing tanks and fuselage areas carrying the aircraft production fuel system (including in-flight refuelling). Test Rig required for A400M Test and Certification of Fuel System.
AIRBUS A350 Wing Root End Clamp (Static Test)			
	SOGECLAIR AEROSPACE LTD	Bristol	Design of the wing root end clamping system to secure the full scale wing whilst being statically loaded. To be manufactured in France and used at Airbus (Toulouse) as an integral part of their wing test bed.
Transportation Jigs for the Royal Jordanian Air force's Hawk Mk63 Advanced Jet Trainer wing and fuselage			
	HORIZON LTD	ST Athan, South Wales	Detail, fabrication and assembly drawings of wing and fuselage transportation jigs for the Hawk Mk63 Advanced Jet Trainer. Equipment to be used for transfering the Hawks from Jordan to St Athan for servicing/refit.
IBC Manipulator			
	HOWELL ADAMS ENGINEERING LTD	Cowbridge, South Wales	Design and stress analysis of an Intermediate Bulk Container (IBC) Manipulator for a Bio-methane Power Station operator.
Cleaner for seismic streamers used for offshore oil and gas exploration.			
Ö	OPERATIONAL SAFETY CONSULTANTS LTD	Hengoed, South Wales	Design of a device to remove marine growth from seismic streamers using a combination of linear and rotary motion for offshore oil and gas exploration.



Gareth Jones, Director of Jones Design Solutions, is happy to assist you with any enquiry.

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