



2025-26 COMPANY PROFILE

Zedaxis Engineering Solutions Pvt. Ltd.

End-to-end Design & Manufacturing Solutions for Precision Engineering

At Zedaxis, we believe engineering should be smart and seamlessly effective. We are a global engineering solutions provider, delivering design and manufacturing services from our facilities in the **UK and India**. What began in 2017 as a small design office in Wolverhampton has now grown into a full-service engineering firm.

Today, we're trusted by over 190 clients across industries all over the world. From rapid prototyping to large scale production and from land to sea, and sky. We deliver solutions for **automotive, aerospace, marine, defence, rail, and industrial manufacturing**.

Our strength lies in offering end-to-end services. Whether it's transforming a concept into design for manufacturing or manufacturing precision-engineered components, we bring it all under one roof.

VISION

To deliver simple design and reliable manufacturing, every time.

MISSION

Simplifying complex engineering challenges.

VALUES

Quality First

We are ISO 9001:2015 certified, ensuring every output meets international quality standards.

Integrated Workflow

Everything is synced from design to delivery, powered by Salesforce. It's how we stay fast, focused, and flawlessly connected.

Sustainability-Driven

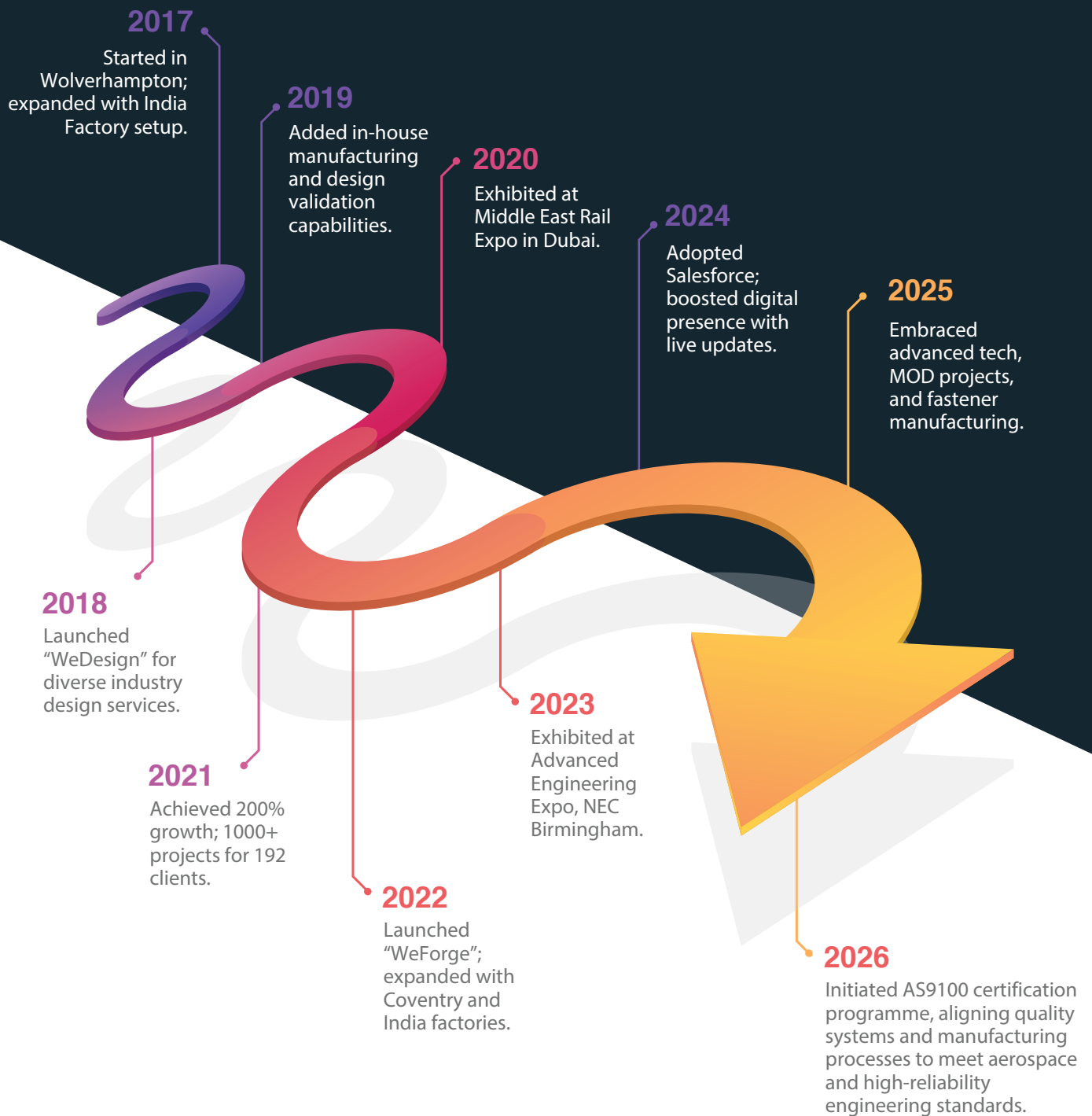
Sustainability is a journey, and we're taking real steps to reduce our footprint and build a better future.

People-Focused

We invest in the next generation of engineers, and we're committed to diversity, equal opportunity, and fair labour practices in both India and the UK.



OUR JOURNEY





We believe good design is the foundation of great engineering. Whether it's a rough idea, a hand sketch, or an existing part that needs reengineering, our design process starts by understanding your intended use, operating environment, and application.

Engineering Design Capabilities

2D & 3D CAD DESIGN

We create accurate and detailed 2D drawings and 3D models using:



Whether you need a complete design from scratch or modifications to existing drawings, our team ensures it meets manufacturability and compliance standards.

ON-SITE SURVEY & 3D SCANNING

Detailed site surveys, high-resolution 3D scans, and reverse engineering allow us to reproduce obsolete OEM parts, rebuild designs without drawings, and ensure accurate manufacturing data.

3D ASSET MODELING & RENDERING

Using Maya, Rhino, and KeyShot, we produce:

- High-quality 3D visualizations
- Marketing renders
- Design concept presentations

This supports both internal reviews and client demonstrations.

SIMULATION & STRENGTH ANALYSIS

We validate design performance using industry-standard tools like



- Structural
- Thermal
- Fluid dynamics
- Modal, buckling, and fatigue analyses

This helps ensure your product functions reliably under real-world conditions before production.

CE DOCUMENTATION SUPPORT

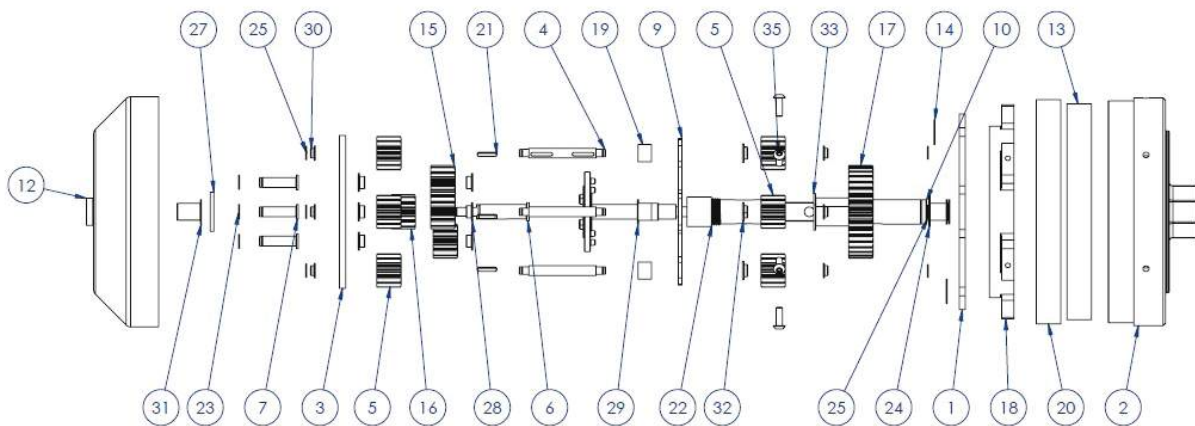
We assist with the creation of technical files and risk assessments to support CE certification, including:

- Technical dossiers
- Safety analyses
- Compliance checklists

LIGHTING, ELECTRICAL & ELECTRONICS DESIGN

Our design support extends into specialized areas:

- Lighting layout and simulation
- Wiring schematics and panel designs
- Embedded electronic component selection and integration



CASE STUDY

CASE STUDY 1:

Cobot Palletiser — Granta Automation

Scope:

Designed a compact, modular Cobot palletising system using SolidWorks for flexible, multi-product handling.

Highlights:

Integrated safety fencing, conveyors, and robot simulation. Space-efficient, ready for 24/7 operation.

Outcome:

Successfully deployed across production lines with quick setup and minimal adjustments.

CASE STUDY 2:

Composite Lift — Design Collaboration with Atwell International

Scope:

Designed a modern lift interior using lightweight glass-filled nylon panels.

Highlights:

We partnered with Atwell International to design a first-of-its-kind composite lift cabin and lightweight modular lift structure for Far East Group, Singapore.

Outcome:

A durable, stylish lift solution ready for mass production.

CASE STUDY 3:

Jib Arm / Davit Arm — AMCO GIFFEN (for Water Control Structure).

Scope:

Designed a custom Jib Arm Assembly for winching a Flap valve on a water control structure, enabling manual operation of flaps that regulate water flow through a culvert or similar channel.

Highlights:

- Engineered for manual lifting using a Tirfor winch.
- Designed to align with pre-existing flap and headwall structure.
- Focused on durability, ease of installation, and low maintenance.
- CAD models and technical drawings ensured precision and compatibility.

Outcome:

Successfully delivered a robust, reliable design that integrated seamlessly with the existing infrastructure, offering a cost-effective, manually operated solution for water flow control.



We bring your designs to life with precision engineering. Our in-house team and trusted partner network ensure tight tolerances, precise finishes, and consistency. With advanced facilities in the UK and India, we are equipped to handle everything from prototype machining to full-scale production.

Machining & Manufacturing Capabilities

CNC TURNING & MILLING

- Maximum Turning Diameter: Ø 1000mm
- Maximum Turning Length: 1600 mm
- Maximum Machining Travel: 1270 x 508 x 635 mm
- 3-axis and 4-axis capabilities
- Complex profiles, pocketing, slotting, drilling, and tapping
- Ideal for precision components, mold bases, and custom fixtures

Materials handled: Ferrous and non-ferrous alloys, Engineering Steels, Engineering Plastics, Stainless Steels and Titanium.

3D PRINTING & PROTOTYPING

Fast, Functional and Future-Ready

- FDM (Fused Deposition Modeling) for robust, functional parts
- SLA (Stereo lithography) for smooth, high-detail visual models
- Materials: PLA, ABS, PETG, TPU, Nylon and more

FORGING & CASTING

Strong components built to endure extreme conditions

- Closed-die and open-die forging
- Sand casting
- Investment casting
- Die casting



JIGS, FIXTURES & GAUGES:

We specialize in the manufacturing of high-precision jigs, fixtures, and gauges tailored to meet specific production and inspection needs across industries.

Our capabilities include:

- CNC Machining Fixtures
- Industrial Assembly Fixtures
- HMC Hydraulic Fixtures
- Drill Jigs & V-Block Fixtures
- Plain Plug & Ring Gauges
- Receiving Gauges & Inspection Fixtures

GEAR CUTTING

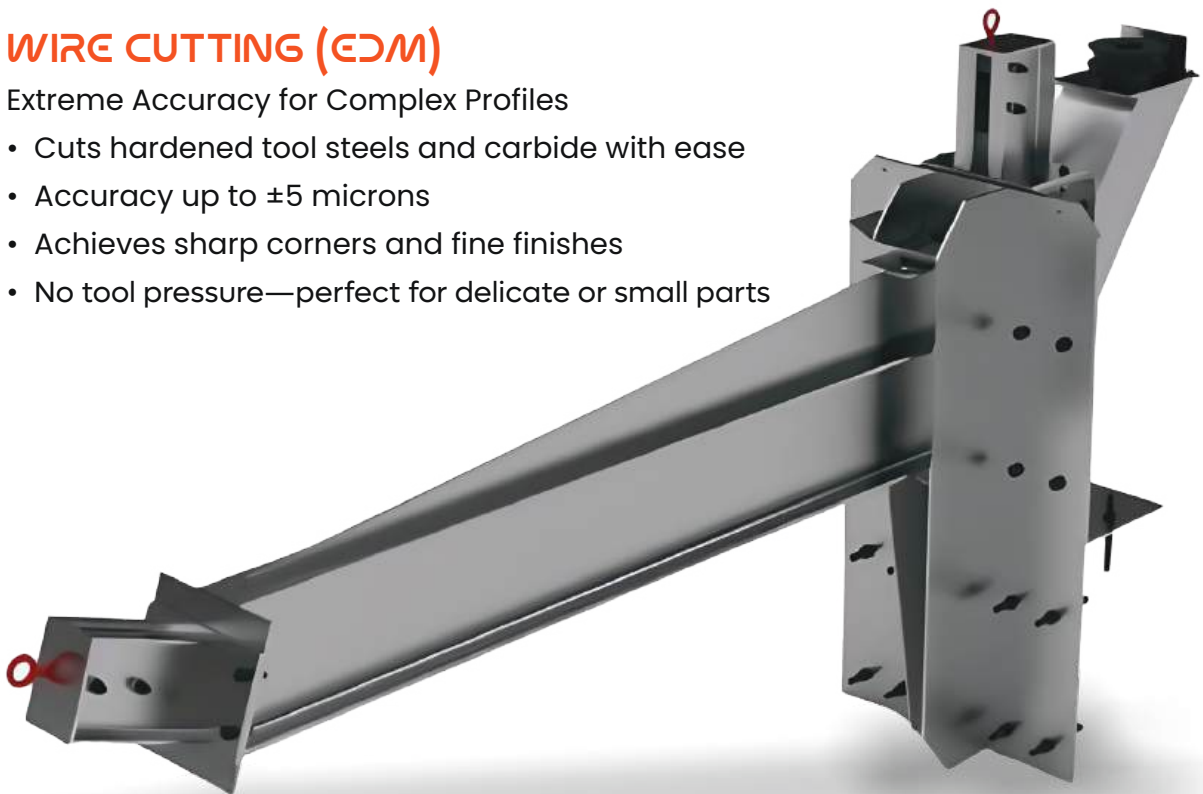
We manufacture a wide range of gears with tight tolerances and high accuracy:

- Spur, Helical, Bevel and Internal Gears
- CNC-controlled for consistent pitch and tooth profile
- Suitable for gearboxes, engines, and automation systems
- Optional hardening and surface treatments for durability

WIRE CUTTING (EDM)

Extreme Accuracy for Complex Profiles

- Cuts hardened tool steels and carbide with ease
- Accuracy up to ± 5 microns
- Achieves sharp corners and fine finishes
- No tool pressure—perfect for delicate or small parts



HEAT TREATMENT & SURFACE FINISHING

Heat Treatments:

- Case Hardening
- Nitriding

Surface Finishes:

- Bright Zinc Plating
- Anodizing
- Chemical Blackening
- Powder Coating
- Industrial Painting
- Galvanizing

QUALITY ASSURANCE

Documentation & Inspection

- Certificate of Conformity (CoC)
- CMM inspection reports
(available upon request)
- Material certificates
(available upon requests)

FABRICATION & WELDING

- Fabrication as per BS EN 1090 standards
- Materials: MS, SS, and Aluminium
- MIG and LASER welding



CASE STUDY

CASE STUDY 1:

Corner & Subframe Lifting Jigs – REE Automotive

Scope:

Manufacturing of heavy-duty lifting fixtures for automotive chassis handling, including both corner and subframe jigs.

Highlights:

- Fabrication using mild steel with integrated welded and machined parts.
- Incorporated client-requested changes during production (additional M16 lifting pads for backup lifting points).
- Precise alignment and load-bearing validation for safe operation in EV assembly lines.

Outcome:

Delivered rugged, reliable jigs that passed inspection and were integrated into REE's production workflow seamlessly.

CASE STUDY 2:

Jib Arm / Davit Arm – AMCO GIFFEN

Scope:

Full fabrication of a Jib Arm used in operating a Eel friendly flap valve in a water control structure.

Highlights:

- Manufactured using mild steel with precision welding and machining.
- Designed for load-bearing strength in outdoor environments.
- Surface finished with galvanizing to prevent corrosion and enhance service life.

Outcome:

Delivered as a fully assembled fixture, ready for load handling. Client praised the structural finish and fit accuracy.

CASE STUDY 3:

Water Pump Spindle – ESP Automotive

Scope:

Machining of hardened EN8 water pump spindles used in classic Triumph engine assemblies.

Highlights:

- CNC turning and finishing to exact tolerance requirements.
- Heat-treated for wear resistance and dimensional stability.
- Batch consistency maintained throughout the run.

Outcome:

Flawless parts delivered for legacy engine restoration and performance builds, meeting all dimensional specs and hardness standards.

QUALITY & INSPECTION

CONSISTENT QUALITY YOU CAN RELY ON

Quality is embedded at every stage of our lift component manufacturing process. All parts are produced strictly in accordance with approved drawings, technical specifications, and defined inspection plans.

Inspection capabilities include:

- Dimensional inspection using calibrated measuring instruments (Vernier, micrometer, and height gauge verification)
- Visual and surface finish inspection
- CMM inspection using KEYENCE XM-5000 (handheld probe) for critical dimensions, alignments, and tolerances.

Inspection reports and quality documentation are provided as per customer and project requirements.



QUALITY & COMPLIANCE

Zedaxis operates under internationally recognized quality and fabrication standards, ensuring every project meets strict engineering, manufacturing, and compliance requirements.

Our systems are designed to support high-reliability infrastructure projects, with a strong focus on consistency, traceability, and continuous improvement.

CERTIFICATIONS

ISO 9001:2015

Quality Management System

Ensuring consistent processes, controlled documentation, and continuous improvement across all operations.



BS EN 1090

Structural Fabrication Compliance

Certified fabrication processes for load-bearing steel structures used in infrastructure and industrial applications.



AS9100 (In Progress)

Advanced Quality Standard

Currently implementing AS9100 quality systems to further strengthen process control, traceability, and high-reliability engineering standards.



COMPLIANCE YOU CAN TRUST

- Controlled manufacturing and fabrication processes
- Full traceability of materials and production
- Inspection and quality documentation provided
- Adherence to international engineering standards

SUPPORTING DOCUMENTATION

All projects are supported with required technical and quality documentation as per client and regulatory requirements

OUR GLOBAL PRESENCE AND CLIENTS



**AMCO
GIFFEN**

GRANTA
ACHIEVE WITH AUTOMATION

HAYLEY 247
DEXIS

Pharma
Packaging Systems

**Environment
Agency**

Ai ATWELL
INTERNATIONAL

DCE DIGITAL
CONCEPTS
ENGINEERING

Stannah

AEY
AE YATES GROUP

Accu
Building Tomorrow.

R3E

Varlowe
Industrial Services

millboard
Live Life Outside.


Ministry
of Defence

ARBIL

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