

ATIF FURQAAN

Mechanical Design Engineer | CSWE Certified

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300+ drawing packs **50+** clients **10+** industries **9** CAD certifications

PROFESSIONAL SUMMARY

CSWE-certified Mechanical Design Engineer with 4+ years' UK experience delivering production-ready drawing packs across structural steel, moulded polymer, and GRP fabrication. MSc Advanced Product Design Engineering (Kingston University London). Skilled in SolidWorks, Siemens NX, and DriveWorks design automation, with hands-on experience in CNC fabrication, mechanical assembly, dimensional inspection, and prototype build. Produces BS 8888-compliant engineering drawings engineered for first time fit manufacture and zero-defect shop-floor release.

KEY SKILLS

SolidWorks (CSWE) - Siemens NX - DriveWorks / DriveWorksXpress - AutoCAD - Fusion 360 - Parametric Modelling - Assembly Modelling - 3D CAD - Engineering Drawings - BS 8888 - BS EN ISO 14122 - ISO 128 - ISO 2768 - GD&T (Geometric Dimensioning & Tolerancing) - Tolerance Stack-Up - Design for Manufacture (DFM) - Design for Assembly (DFA) - Sheet Metal - Weldments - Mould Tools - Cavity Design - Design Automation - GA Drawings - Fabrication Drawings - BOM Management - Revision Control - Weld Notation - Cut Lists - SolidWorks Simulation (FEA) - ANSYS Mechanical APDL - Engineering Analysis - CNC Machining - Mechanical Assembly - Dimensional Inspection - Prototype Build - SolidWorks Visualize - KeyShot - MS Excel - MATLAB - Adobe Illustrator - Adobe InDesign - Client Liaison - Stakeholder Management - Technical Documentation - Engineering Change Notices (ECN) - Design Reviews - Cross-Functional Communication

WORK EXPERIENCE

Mechanical Design Engineer / Technical Draughtsman May 2021 - Present

Imagine Draughting Service - Blackpool, UK

Multi-sector contract design and draughting consultancy serving manufacturing, construction, and process industries.

- Delivered 300+ production drawing packs across 50+ clients in 10+ industries, achieving zero-defect shop-floor release across structural steel, polymer, and GRP product lines.
- Designed custom box sections and standard walkway assemblies for SURPRO Ltd, producing fabrication-ready GA and detail drawings for galvanised steel access systems including walkways, guardrails, ship ladders, and platforms. Supported CNC fabrication on the shop floor and carried out dimensional inspections to verify first-time-fit manufacturability.
- Developed six GRP enclosure door configurations (single-door, double-door, bi-fold, 5-door, gas-strut, inclined-roof) for Fibaform, progressing each variant from concept through to fabrication-ready drawing packs via direct shop-floor validation and customer liaison.
- Automated product-variant drawings for Rosehill Polymers (moulded rubber and polymer manufacturer), cutting turnaround to same-cycle release via parametric SolidWorks models and Excel-driven DriveWorksXpress workflows.
- Delivered 3D CAD layouts and BOM-ready documentation for stainless steel process equipment including ultrasonic cleaning systems, wash/rinse tanks, dryer units, and pump/filter assemblies, coordinating pipework routing and support detailing.
- Produced manufacturing-detail drawings for a public-facing structural steel decking programme, ensuring compliance with corrosion-protection and bolt-pattern specifications on curved profiles.
- Progressed an architectural feature staircase and metalwork-panel programme from concept to client sign-off with zero revision cycles, coordinating timber tread and landing finishes with a steel stair structure and floor-interface geometry in 3D.
- Collaborated with clients, fabricators, and project teams throughout, producing revision-controlled BOMs, engineering change notices, and technical documentation to BS 8888 and client-specific standards.

Junior Design Engineer Dec 2020 - May 2021

REBO - Powys, Wales

Outdoor play equipment manufacturer specialising in consumer and commercial recreational products.

- Reverse-engineered existing outdoor play equipment for market relaunch, measuring physical products, rebuilding CAD models, and issuing manufacturing drawings for supplier handover.
- Physically built and assembled a full-scale playground prototype on site, validating structural integrity, fit, and buildability against British Standards for safety-critical consumer products.
- Delivered market-ready product concepts under seasonal demand spikes, balancing stability, buildability, and cost within British Standards and manufacturing constraints.

KEY PROJECTS

Multi-Variant GRP Enclosure Range (SolidWorks, GRP enclosures, door variants, fabrication)

Bespoke GRP enclosure product family with six door configurations, developed from concept through to fabrication-ready drawing packs for Fibaform's shop floor and customer sign-off.

Galvanized Steel Access Systems (SolidWorks, steelwork, CNC, access platforms, walkways)

Ongoing programme of access platforms, walkways, guardrails, ship ladders, and custom box sections for SURPRO Ltd, with hands-on CNC support and dimensional inspection.

Architectural Feature Staircase (SolidWorks, concept-to-approval, multi-material)

Feature staircase integrating timber, steel structure, and floor-interface geometry, progressed from concept to client sign-off with zero revision cycles.

Playground Equipment Redesign (Reverse engineering, prototype build, British Standards)

Reverse-engineered existing products, rebuilt CAD models, developed new variants, and physically assembled a full-scale prototype to validate the design.

Full case studies with renders available at atifurqaan.qzz.io/projects

CERTIFICATIONS

Dassault Systèmes (8)

- Certified SOLIDWORKS Expert (CSWE) - Mechanical Design | Certified SOLIDWORKS Professional (CSWP) - Mechanical Design
- CSWP Advanced - Weldments | CSWP Advanced - Sheet Metal | CSWP Advanced - Mold Making | CSWP Advanced - Drawing Tools
- CSWP - Model Based Definition (MBD) | CSWP - Simulation Professional

DriveWorks Ltd (1)

- Certified DriveWorksXpress Associate

Credential IDs available on request.

EDUCATION

MSc Advanced Product Design Engineering 2020 - 2021

Kingston University London

Modules: Computer Integrated Product Development, Advanced CAD/CAM, Green Engineering. Coursework included Siemens NX modelling, FEA simulation, and product development projects.

BEng Mechanical Engineering 2015 - 2019

Muffakham Jah College of Engineering and Technology, Hyderabad

Modules: CAD/CAM, Production Drawing, FEA, Thermal Engineering, Refrigeration & Air Conditioning.

ADDITIONAL INFORMATION

- **Portfolio:** atifurqaan.qzz.io - full case studies, verified certifications, and project renders.
- **Right to Work:** Full right to work in the UK. Available for contract/consultancy engagement via Imagine Draughting Service (existing UK-based employer) — no direct sponsorship or employment action required from engaging companies.
- **Driving License:** Full UK driving licence.
- References available on request.