



emc

Mechanical

Our Mechanical Engineering team brings proven expertise across both Brownfield and Greenfield projects, delivering practical, high-performance solutions tailored to diverse industrial environments.

Our Engineers and Designers are highly skilled in a wide range of engineering software tools, enabling the efficient and accurate execution of mechanical design tasks, from concept development to detailed fabrication support.

Engineering Expertise from Concept to Completion

At EMC, we combine mechanical engineering expertise with innovative thinking to deliver digital engineering solutions, from conceptual studies to detailed design.

Our experienced team brings decades of success in cost-effective, schedule-driven mechanical design and execution, consistently solving complex industrial challenges with reliable, high-quality outcomes.

From greenfield developments to brownfield modifications and asset life extension, we deliver practical, performance-focused mechanical solutions tailored to your needs.

With a technology-agnostic mindset, we apply the latest tools, codes, and standards, ensuring safety, quality, and operational efficiency are never compromised.

Engineering Services

Mechanical Engineering Capabilities

Our mechanical engineering team brings proven expertise in delivering effective solutions for both brownfield upgrades and greenfield developments across onshore and offshore environments.

Smarter Execution with Advanced Engineering Tools

Precision, Integration, and Results

At EMC, we utilise a comprehensive range of industry-proven mechanical engineering tools to support the entire project lifecycle. From equipment placement and mechanical system integration to 3D modelling and fabrication-ready deliverables, our solutions ensure precise, efficient, and coordinated mechanical execution from concept to completion.

Key Tools We Use:

- AVEVA Engineering – Centralised 1D data platform for equipment datasheets, tag management, and interface control.
- AVEVA Everything3D (E3D) – Intelligent 3D modelling of mechanical systems for equipment layout, clash detection, and integration.
- Autodesk AutoCAD – Production of general arrangement drawings, fabrication details, and construction deliverables.

Why It Matters:

- ✓ Early detection of mechanical design clashes and constraints
- ✓ Enhanced collaboration across piping, structural, and electrical disciplines
- ✓ Greater accuracy in equipment placement and integration
- ✓ Streamlined development of mechanical deliverables across all project stages

With EMC, you gain a mechanical engineering partner equipped with the tools and expertise to drive efficient, reliable, and high-performance outcomes from concept to commissioning.





Commitment to Quality and Compliance

At EMC, the technical quality of our work is underpinned by our robust Quality Management System, Health, Safety & the Environment to the latest industry codes and standards.

Our structured approach, featuring Discipline Engineers, Technical Authorities, and Discipline Management, ensures all designs go through project multi-discipline reviews and approvals by qualified and experienced professionals, maintaining the highest standards of engineering integrity.



Aveva Systems Integration Partner

EMC Supports the full Engineering suite embracing EPC4.0 and ENG4.0 roadmaps with the release of EMC4.0™

- PRO/II Simulation
- Electrical
- Instrumentation
- Engineering for Process and Mechanical
- P&IDs
- ERM
- ISM/AIM-A
- PCM

Capabilities Snapshot

- Offshore and onshore oil & gas design
- Brownfield equipment upgrades, retrofits, and mechanical tie-ins
- System design for FPSO topsides and utility packages
- 3D modelling using AVEVA E3D for equipment and layout planning
- Mechanical stress analysis and equipment specification support
- Integration of point cloud data for clash-free equipment placement and piping interfaces
- Conceptual design, feasibility assessments, and detailed mechanical engineering
- Development of fabrication-ready deliverables, including GA drawings, isometrics, and MTOs
- Support during construction, commissioning, and installation phases
- Onshore and offshore surveys and site validation
- On-site support for fabrication and installation coordination

Let's Engineer, Design & Build something exceptional together.

Contact us today to learn how our engineering expertise can bring your project to life.

Contact EMC today! Email colin.fairweather@emcserv.com or gary.patterson@emcserv.com or call us on 020 363 363 03 (Option 2), and let's get started.