



Piping

Our Piping engineering team has extensive experience in both Brownfield and Greenfield developments.

Our Engineers and Designers are proficient in multiple engineering applications that enable efficient and effective execution of our piping engineering and design activities.

Engineering Expertise from Concept to Completion

At EMC, we combine technical excellence with innovative thinking to deliver digital engineering solutions from conceptual studies through to detailed engineering.

Our highly experienced team with decades of experience in cost-effective, schedule-driven design and execution, solve complex industrial challenges with a consistent record of reliable, high-quality results.

Whether it's a greenfield development, brownfield expansion, or asset life extension, our team delivers creative, practical solutions tailored to your needs.

Our technology-agnostic approach ensures we apply the latest methods, codes and standards and best-fit tools—without compromising on safety, performance, or quality.



Engineering Services

Advanced Engineering Tools for Smarter Piping Delivery

At EMC, we apply a powerful suite of industry-standard engineering tools to deliver piping solutions that are accurate, efficient, and fully aligned with project requirements. Our toolset supports the complete piping workflow, from conceptual layouts and detailed design through to isometrics and fabrication, ensuring seamless execution and integration across the full project lifecycle.

Key Tools We Use:

- AVEVA™ Everything3D (E3D) – Intelligent 3D piping design and spatial coordination for multi-discipline integration.
- AVEVA™ Engineering – Centralised 1D data management supporting piping specifications, datasheets, and line list control.
- AVEVA™ Diagrams – P&ID and schematic generation with intelligent data linking to downstream design tools.
- Navisworks – Design review and clash detection to identify interface issues early in the process.
- Caesar II – Industry-standard pipe stress analysis tool ensuring compliance with code requirements and mechanical integrity under design loads.

Why It Matters:

- ✓ Early identification and resolution of design clashes
- ✓ Seamless integration with process, mechanical, and structural disciplines
- ✓ Improved deliverable quality and consistency
- ✓ Efficient layout planning and space optimisation across project phases

With EMC, you gain a piping engineering partner that combines the right tools with practical expertise to drive project success, on time, in spec, and fully traceable.

Delivering confidence through technology at every stage of your project.



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

- Onshore and offshore oil and gas piping design
- Brownfield piping upgrades, tie-ins, and reroutes
- FPSO piping systems and topside layout design
- Intelligent 3D piping modelling in AVEVA™ E3DLine list development and pipe specification management
- Piping isometrics, GA drawings, and MTO generation
- Integration of point cloud data for clash-free piping design
- Conceptual layout, feasibility assessments, and detailed piping design
- Fabrication-ready deliverables including spool drawings and weld maps
- Construction-phase piping support and as-built reconciliation
- Onshore and offshore piping system surveys
- Site-based support for installation and fabrication activities

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.