

ENGINEERING SERVICES LTD Your EC&I Engineering Solutions Provider



We are passionate about what we do and our business is delivering EC&I projects. Our objectives are to deliver the highest quality innovative and dynamic solutions.

About Us

C&P Engineering Services is an electrical control and instrumentation engineering solutions provider, operating in a varied and diverse range of industries. Established in 1973, we have been successfully delivering on a worldwide basis, electrical engineering services, disciplines and projects to manufacturers, operators and developers.

We provide a wide scope of project services from design, project management, installation, commissioning, through to ongoing operation and the maintenance of assets.

Our strong design & build, project management in-house capabilities and experience offer high quality electrical and instrumentation engineering services.

We understand the types of challenges that many of our customers face today, such as the need to minimise downtime, enhance maintenance efficiency and decrease operational costs. It is for this reason that we work closely with our customers to ensure we understand their needs and objectives, whilst integrating with their operations in order to assist in maximising return on investment. Our priority is to provide electrical & instrumentation engineering services that strive to perform beyond expectation. We make sure that every project is completed safely, on time, within budget, to specification and with minimal downtime. We do this through understanding your requirements, through carefully listening to your objectives and utilising design and innovation to add value to your projects and business.

Industry Experience

Our EC&I engineering services and expertise can be adapte wide range of industry sectors:

Chemical
Oil & Gas
Petrochemical
Power Generation
Renewable Energy
Nuclear
National Grid
Vehicle Manufacturing
General Manufacturing
Marine Energy
Hydro
Docks
Pharmaceuticals

Accreditations

APPROVED CONTRACTOR HAZARDOUS RREAS









Our EC&I engineering services and expertise can be adapted to suit your business requirements and our experience stems from a

- Water Treatment & Utilities
- Steel Manufacturing
- Industrial Manufacturing
- Biomass
- Solar Farms
- Energy / Battery Storage
- Aviation & Airports
- Stadiums
- MOD (Ministry of Defence) Sites



Industry Sectors







Renewable Energy



Vehicle Manufacturing



Steel Manufacturing



Water Treatment



Oil & Gas



Airport & Aviation



harmaceutical



Food Production







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Breweries and Distilleries



MOD (Ministry of Defence) Sites

Committed to QHSE

C&P Engineering Services is committed to ensuring the Health, Safety and Welfare of its employees and of any other person who may be affected by our engineering operations, at all of our sites, works and offices, throughout the UK and worldwide.

All potential hazards and health & safety and environmental risks are identified and negated or minimised from the outset to ensure safe, healthy and environmentally sound working environments for our employees, our customers and other stakeholders who may be affected by our operations.

Our project engineers and technical installation and maintenance staff are highly trained, experienced and competent in their designated area of operation and carry out their work in a safe and efficient manner with the least possible disruption to our customers' business.

We recognise that training and continuous development of our staff is essential for us to achieve our Quality, Health & Safety and Environmental goals and we have developed industry leading systems to ensure that all of our employees are provided with the necessary skills and experience to carry out their work effectively whilst working fully in accordance with globally recognised best practice.



C&P Engineering Services Ltd operates a strong Health & Safety Culture driven by our goal for zero accidents. We understand that by following stringent procedures we can ensure your projects run smoothly and SAFELY.

- Fully Trained and Competent Staff
- Regular On-Site Safety Audits
- Daily Risk Assessment
- Use of the Full range of Personal Protective Equipment (PPE)
- Liaison with Client's Staff Affected by Work Activities
- Hazards and Risks Controlled at Work-Site
- SMSTS Qualified site Managers
- ISO 9001:2015 Accredited Company
- ISO 45001:2018 Accredited Company

EC&I Engineering Services

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Our full range of integrated electrical and instrumentation disciplines include:



Electrical & Instrumentation Project Services



Instrumentation, Control and Automation – PLC, DCS and SCADA Solutions



Safety Instrumented System Design & Implementation and Functional Safety Management Consultancy – IEC 61508 / IEC 61511

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Hazardous Area ATEX Inspection, Verification & Consultancy

CompEx Electrical Training

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Calibration. Maintenance & Commissioning



Electrical & Instrumentation Project Services



From design, through to procurement, construction, commissioning and handover, C&P Engineering Services is ideally placed to manage the whole EC&I engineering process, including documentation, commissioning, compliance and testing. Through partnering with C&P we will provide a comprehensive EC&I package for your projects, ensuring they are built on time, to budget, with confidence, value and success.

Our engineers have vast expertise in delivering a wide range of industrial applications with regards to the specification of LV & HV electrical, control, automation, instrumentation and hazardous area disciplines. Our experienced and qualified engineers take into account the highest standards of quality, innovation and care when designing, construction and commissioning electrical, control and instrumentation solutions.

We provide total EC&I engineering solutions and have designed and constructed projects, ranging from instrumentation, control & automation projects in the process and manufacturing industry to full turnkey projects. Our EC&I project services can be combined to provide the total EC&I engineering solution or divided into the following Design & Build specialist areas:

- Instrumentation, Control & Automation Design & Build
- Low Voltage Electrical Design & Build
- Hazardous Area ATEX Electrical & Instrumentation
 Design & Build
- Safety Instrumented System Design & Implementation - IEC61508/IEC61511
- Functional Safety Management Consulting Services
- IEC61508/IEC61511
- Machinery Safety

Our strong supply chain partnerships and purchasing power enables us to provide access to high quality, cost effective EC&I parts and equipment.

A strong combination of design & build and project management in-house capabilities and experience enables C&P Engineering Services to deliver the highest levels of EC&I project services with our partnerships across a varied range of sectors.

"Building quality solutions for our clients."

Instrumentation, Control and Automation – PLC, DCS and SCADA Solutions



We are specialists in designing, specifying, constructing, commissioning and maintaining instrumentation, control and automation systems for a wide range of industrial and commercial applications.

Our engineering team is familiar with a broad range of industrial current loop, temperature, pressure, level and flow sensors and associated equipment and fluent in electronics, fluid dynamics, material selection, control engineering, and systems engineering. We are able to deliver pre-configured panels to custom solutions and our engineers have extensive expertise to maximise system reliability and minimise operational risk. Our instrumentation, automation & controls services also include PLC, DCS and SCADA solutions.

We also have engineers that are functional safety, TUV certified and come with a wealth of experience having spent many years in leading, managing and delivering all aspects of the IEC61508/IEC61511 lifecycle within Top Tier COMAH Facilities. Stringent quality procedures are applied to every project, from specification and construction through to commissioning. Every application is built to be robust, fit for purpose and well documented.

"Passionate about instrumentation and control." **Our Instrumentation, Control & Automation Services:**

- Pressure
- Temperature
- Flow
- Level
- Analytical
- PLC, PAC and DCS systems
- SCADA, HMI and Web Interfaces
- Data and analytics
- Safety systems (Process & Functional)
- Systems Support
- Control System Migration
- Pneumatic Control Systems
- Instrumentation, Control & Automation System Design
- Pipe Fitting (impulse lines, air headers, control valves, SOV's, analysers etc)
- Control Panel Design & Build
- Instrument Enclosures
- Calibration & Repair
- Loop Checking
- Intrinsically Safe Instrumentation
- Modbus / Profibus
- Commissioning & Maintenance
- Machinery Safety

We deliver end-to-end solutions and our control, instrumentation and automation system engineers provide feedback and assessment of your needs to produce a detailed Functional Design Specification that meets the application requirements, together with a pre-planned strategy.

Safety Instrumented System Design & Implementation and Functional Safety Management Consultancy – IEC 61508 / IEC 61511

C&P Engineering Services is an international engineering solutions provider, offering Functional Safety Management / Safety Instrumented System services and solutions.

Our engineering consultants cover the following aspects of Functional Safety Management (FSM)

- IEC61508, IEC 61511 Lifecycle Compliance
- Hazard and Risk Analysis (HARA)
- Hazard and Operational (HAZOP) Analysis
- Layer of Protection Analysis (LOPA)
- Safety Requirements Specification (SRS)
- SIL Determination, Calculations & Assessment,
- Functional Safety Assessments
- SIS Design & Implementation, Replacement of Non-Compliant 'Legacy' Safety Systems
- Quantitative Risk Assessment (QRA) and Risk Management.

C&P has supported multiple industry sectors in the petrochemical, chemical, oil and gas, nuclear, heavy manufacturing and pharmaceutical markets and has supported clients in optimising and delivering compliance with IEC61511 with a simple and cost-effective approach.

C&P's consultants are TUV certified Function Safety Engineers, who come with a wealth of experience and have spent many years in leading, managing and delivering all aspects of the IEC61508/IEC61511 lifecycle within Top Tier COMAH Facilities.

Through our consultancy services we are also able to assist your organisation with keeping abreast of industry best practices, emerging technologies, the threat from Cyber Attack and the regulator's current focus.

We offer a pragmatic, realistic approach to improving the safety of your process and our team of EC&I Engineers and Technicians provide cost effective engineered solutions to bridge any gaps between existing installations and legislative requirements.



Low Voltage Electrical Design & Build Services



We provide Electrical design & build services to a wide range of sectors, including the oil & gas, chemical, nuclear, pharmaceutical, steel, power generation, process manufacturing and renewable energy industries throughout the UK and internationally.

Our electrical services range from design, specification, procurement, installation, inspection and testing, commissioning, maintenance and on-going support.

We have been Assessed and Certified by the NIC EIC (National Inspection Council for Electrical Installation Contractors) as having the technical capability to carry out electrical work in:

- (a) Accordance with BS 7671: 2018 amendment T2 IEE Wiring Regulations for Electrical Installations.
- (b) Areas where potentially explosive atmospheres may be expected to occur in the form of explosive gases, vapours or combustible dusts.

 Electrical Design, Installation Commissioning & Maintenance (Single 230V & three phase 400V) Hazardous Area Electrical Installation, Maintenance & Inspection Small Power and Lighting Installations LV Power Distribution Production Line and Machinery Installations and Relocations Containment (tray, ladder rack, basket tray, trunking, conduit, dado rail etc.) Cable Sizing, Procurement & Installation Cable Glanding and Termination Control Panel Design & Build Periodic Inspection and Testing Portable Appliance Testing (PAT) Instrumentation Network & Data Cabling Personnel Hire Commissioning

Maintenance

Hazardous Area ATEX Inspection, Verification & Consultancy

We provide CompEx certified hazardous area inspection engineers, electricians and technicians who are highly experienced in the field of hazardous area IEC. ATEX, IECEx and DSEAR compliance."

We assist customers with optimising their Ex asset performance, safety and integrity through delivering the following hazardous area ATEX inspection services:

- Ex Inspection of Existing and New Ex Equipment
- Ex Hazardous Area Inspection Strategy Development & Implementation
- Compiling Ex Registers and Client Databases
- Ensuring Verification of all Installed 'Ex' Equipment Databases
- Ensuring Compliance with all Standards and Regulations
- Gap Analysis and Reporting of Current Ex Inspection Procedures
- **Explosion Protection Documents**
- Ex Installation & Maintenance Project Management
- Ex Remedial Repairs & Installation

Combustible Dusts

• Explosive Gases and Vapours Intrinsically Safe Systems

Our hazardous area ATEX inspection services provide assistance with the compliance of electrical installations in potentially explosive atmospheres for new and existing plant

We deliver hazardous area inspections for customers across a wide range of industries, including the Chemical, Nuclear Steel, Oil, Petro-chemical, Pharmaceutical, Gas, Offshore & Heavy Engineering industries. We assist our clients in asset management, the verification of the integrity of their 'Ex' equipment and systems, provide cost effective solutions and ultimately help to develop a path towards full compliance.

Our CompEx certified inspectors deliver comprehensive hazardous area inspection schedules and inspection reports, advising on corrective action where necessary and provide assurance that you are complying with all the very latest international standards, codes and practices and meeting your legal obligations.

Our teams of competent hazardous area inspection engineers have worked in hazardous areas over many years and are CompEx qualified for explosive gases and vapours, intrinsically safe systems and combustible dusts.

"Assisting our customers to comply

CompEx Electrical Training

CompEx is the recognised global scheme for providing candidates with the essential knowledge and practical skills to enable safe working in potentially explosive atmospheres, whether due to flammable gas, combustible dust or

other hazards.

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- Gas & Vapours Ex01-Ex04
- Gas & Vapours Ex01 Ex04 R (Refresher)
- Foundation Ex F
- Dust Ex05-Ex06
- Responsible Persons Ex14
- Design & Project Engineers Ex12A & Ex12B
- Mechanical Ex11

Various course dates throu nout the year at our Swansea Campus: Call +44(0)1792 897002 or Email info@cpengineering.co.uk or visit www.cptrainingservices.co.uk to book your course.

C&P Training Services Ltd Kestrel Way, Penllergaer, Gorseinon, Swansea, SA4 9WN

Comp<mark>Ex</mark>

CompEx Accreditation:

The CompEx scheme is developed by the Engineering Equipment and Materials Users' Association (EEMUA) and JTL Limited, the CompEx Certification Body – accredited by UKAS to ISO/IEC 17024:

We offer CompEx Electrical Training either at our training facility in Swansea or at your site.

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Maintenance & Calibration

Our site support personnel are able to offer a total electrical and instrumentation routine or preventative maintenance package that can be designed to meet your individual requirements.

Our project management team is able to provide long and short-term contract support to service continuous production.

We offer maintenance solutions that help to extend the life expectancy of your plant and processes. We can identify early potential problems and provide service response times that assist in maximizing the efficiency of any planned or unplanned downtime or shutdowns.

Process Instrument Calibration Services

C&P Engineering Services recognises the importance of calibration and offers bespoke on-site calibration services to ensure that you receive the highest level of quality and accuracy. Instrument error can occur due to a variety of reasons; drift, environment, electrical supply, addition of components to the loop, process changes etc.

Our specialist teams manage a wide range and variety of onsite calibration programs, ensuring instruments are calibrated and are traceable to the relevant standards.

C&P's Process Instrument Calibration Service Provides:

- Confidence that the instruments are measuring correctly
- Calibration assistance to ensure that you are in control of your processes and operations
- Highly experienced and qualified CompEx instrument technicians
- Services for all hazardous areas of operations

Process Instrument Calibration Services include:

- Bespoke Site Specific Calibration Programs.
- Project Specific Calibration
- Field and Bench Calibrations
- Laboratory Calibration
- Instrument Loop Testing

We are able to specifically meet the most demanding environments and requirements through our fully trained and competent teams of technicians, supervisors and engineers. All of our process instrument calibrations are traceable to national standards via our UKAS certified working standards.

We also provide direct hire of our highly experienced instrument technicians to carry our maintenance through to ISO process instrument calibrations.











Commissioning

We provide highly skilled personnel that have extensive knowledge and experience to carry out all stages of the pre-commissioning process, from point to point wiring checks, function checks and loop checks to final handover of systems.

We also offer commissioning support using designated personnel to meet your specific operational requirements, providing specialist assistance with fault finding, electrical systems, technical guidance and hand-over of processes and systems.



















For more information about or range of EC&I project services, maintenance options or CompEx electrical training services, please contact:

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