

Control System Capabilities



MECHANICAL SERVICES

Refrigeration and air conditioning control systems for Commercial, Industrial, Marine and high end domestic smart homes. Provide complete power solutions from MSSB to unit.



MANUFACTURING

Industries such as Steel fabrication, water pipe manufacturing and original equipment manufacturers (OEM).



FOOD & BEVERAGE

Controls systems for retail, malt, wineries, abattoirs and many more.



POWER GENERATION

Power generation, power management, diesel generator control, energy management systems and secure power.



OIL & GAS

Motion compensated winching applications, subsea systems and process control



MARINE

Stem to stern ship control and monitoring solutions including upgrades, service and maintenance of your existing systems.



SHIP MOTION CONTROL

Complete motion control systems including upgrades, service and maintenance of your existing systems. Using our extensive network of partners we are able to offer complete solutions.



MINING & MINERALS

Switch room HVAC control, process control, control system upgrades and remote power generation for the mining industry.

Cockburn Electrical Company will assist you with a full range of services, solutions and products for your project from conception through to completion and continued support through service and maintenance.

Consultation (Pre-Project)

Consult, cooperate or assist with:

- Functional design specification.
- Development of controls philosophy.
- Conceptual or detailed design.
- Site assessments of existing plants for modifications or upgrades.
- Capital Expenditure (CAPEX) for feasibility studies.
- Safety Systems Analysis.

Projects

- Co-operative detailed design.
- CAD drawings.
- Technical documentation including operation manuals, trouble shooting guides and software functionality.
- PLC software development using CEC library and project specific DFB's.
- SCADA and Human Machine Interface (HMI).
- Supply of hardware.
- Control cabinets, distribution boards (DB's) and mechanical services switch boards (MSSB).
- Human machine interfaces (HMI) and operator consoles.
- Instrumentation.
- Field devices.
- ASi safety systems.
- Variable speed drives (VSD).
- Network Architectures.
- Programmed logic control (PLC) hardware.
- Electrical distribution, control and monitoring (generator based and network based).
- Mechanical equipment and control devices.
- MCC production and intelligent motor control.
- Commissioning.
- Training, operation and maintenance.
- Cable installation.

Post Sales

- Legacy upgrades.
- Device replacement and installation.
- Breakdown service.
- Service and maintenance contracts.
- Energy Audits and thermographic surveys.
- Energy management, power monitoring, quality and analysis.

Market Areas

- Refrigeration and air conditioning.
- Mechanical Services.
- System Integration.
- Machine Control.
 - Hydraulic control.
 - Position control.
 - Sequential process control.
 - Multiple machine integration.
 - Boiler furnace and smelters.
 - Remote monitoring and operation.
 - Sensor devices and instrumentation.
 - Code drivers for interfacing.
 - Electronic or intelligent motor control.
 - Integration of safety devices- access gates emergency stops, mats and warning devices.
 - Bespoke solutions.
- Material handling.
 - Conveyor systems.
 - Automated stacking and storage.
 - Silo management.
 - Aeration and environmental control.
 - Monitoring systems.
 - Integration of safety devices- access gates emergency stops, mats and warning devices.
- Integrated network Architectures.
 - ASi Control network.
 - Redundant industrial Ethernet ring.
 - Modbus, modbus plus, profibus, Devicenet and other major industry protocols.
 - Wireless networks.
- Marine Automation
 - iShip vessel monitoring and control.
 - Vessel motion control.
 - Service maintenance and upgrades.
- Generator control propriety and on off design.
- Power monitoring, quality, analysis, power factor correction and harmonic mitigation.
- OEM – Custom designed solutions.

Experience

- Tridium BMS.
- Easy IO BMS products.
- Infocon BMS products.
- Innotech.
- Siemens BMS.
- Honeywell BMS.
- Alerton BMS.
- Carel.
- Eliwell.
- Danfoss.
- Schneider PLC: Quantum, Premium, M340 utilising Unity Pro XL V4 software, legacy products utilising PL7, Concept, Proworx32, Proworx Nxt, Square D and Winmate.
- Rockwell PLC systems and software, RS Logix.
- Siemens PLC systems and software, S7.
- Koyo PLC systems and software
- Citect SCADA.
- Wonderware.
- Magelis HMI, Vijeo designer.
- Proface HMI.
- Exor HMI.
- Beijer HMI.
- Leutze Light curtains utilising safety lab software.
- Pepperi and Fuchs Safety Monitors and Field Devices utilising ASi-Win Software.
- Altivar range of VSD's and soft starter utilising powersuite software.
- Moxa Managed Network Switches.
- Hirschman Managed Network Switches.
- Korenix Ethernet and Fibre Switches and gateways.
- Electronic / Intelligent Motor control from several vendors.
- Field instrumentation from several vendors.
- Clipsal Terminal devices including intelligent C-Bus.
- Phoenix Contact I/O, touch screen and networks switches.
- Power monitoring equipment from several vendors.
- Hydraulic systems.
- Pneumatic systems.