

**ELECTRICAL, INSTRUMENTATION
& AUTOMATION**

Company Profile

***Mining, Processing, Energy & Industrial
Electrical & Instrumentation Contractors***

Kalgoorlie Operations

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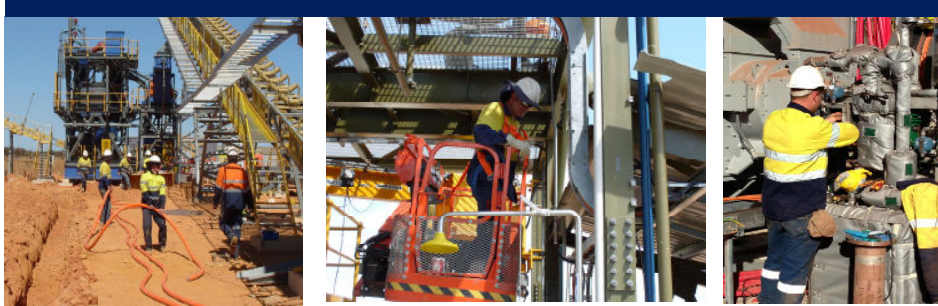
Web: www.mcengineering.com.au

ABN: 91 098 917 018

EC007815



“Providing Total Solutions for your Electrical, Instrument & Control Requirements”



About Us

MCE is focused on providing high quality Electrical & Instrumentation project and construction services to the resources and energy industries

Our Industrial Electrical and Instrumentation experience enables us to provide Installation, design, selection and optimisation of electrical, process instrumentation and safety systems to facilitate value added performance for your operating facility or project. Our vendor-neutral position allows us to provide independent expert advice on the best engineering solution, including technology selection to suit your operational requirements.



We are able to offer the significant benefit of a Total Solutions approach which encompasses design, supply, installation, commissioning and maintenance support. Our services cover virtually every aspect of electrical and instrumentation work.

MCE's objective is to exceed the level of **quality, safety and service** demanded by today's projects and tomorrow's visions.

Services

- ✚ Complete Electrical & Instrument Projects & Construction
- ✚ Low, Medium & High Voltage industrial installations
- ✚ Plant Automation & Control
- ✚ Commercial & HVAC Mechanical Electrical Installations
- ✚ Building Management System Installations & Commissioning
- ✚ Instrumentation Selection, Supply, Installation & Commissioning
- ✚ Commissioning and Plant Optimisation
- ✚ Trenching and Underground Cable Installations
- ✚ Full service control systems integration
- ✚ Single source design, construction and installation capability
- ✚ Switchboard & Control panel fabrication, assembly, testing and installation
- ✚ Preventative maintenance
- ✚ Labour Hire
- ✚ Telemetry Systems
- ✚ Mine & Process Plant Upgrades, Repairs, Refurbishments & Recommissioning
- ✚ Poly Welding Services
- ✚ Civils & Concreting



Manufacturing

MCE can design & manufacture Substations, Switchboards & Control Panels including;

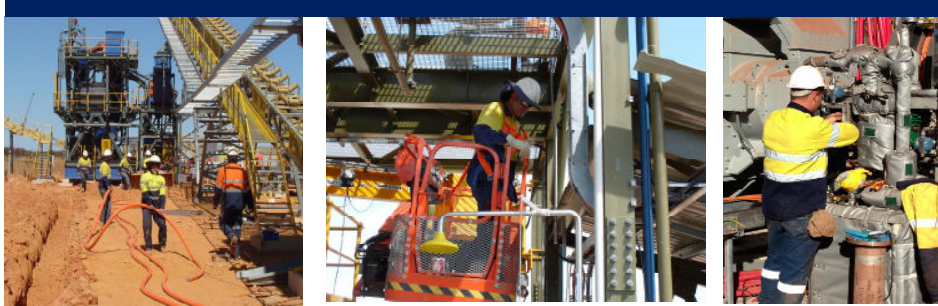
- ✚ MSSB's
- ✚ HV Substations
- ✚ Starter Panels
- ✚ PLC Control Panels
- ✚ Marshalling Panels
- ✚ Instrument Panels
- ✚ MCC Cubicles
- ✚ Pneumatic Panels



Telemetry

MCE can design, manufacture and supply Telemetry & Wireless solutions for the remote measurement & control of Instrumentation, Process control and Borefields Applications.





Plant & Equipment

MCE have invested heavily in plant & equipment to ensure that projects and maintenance activities are able to be completed with minimal requirements for outsourcing of equipment



A full complement of construction tooling including welders, grinders, drills, conduit bending equipment, hand tools, portable lighting, generators, compressors & Purpose built modified sea containers for mobile workshops and storage.

Mobile Plant & Equipment includes LV's, Trucks, Excavators, Trenchers, EWP's & Scissor Lifts.



Safety

Measurement Control Engineering Pty Ltd recognises that Occupational Health & Safety is a fundamental part of its business operations. We steadfastly believe that no business priority comes before safety.

MCE has an outstanding safety record.

We are committed to providing a safe and healthy workplace and environment for all of our employees.

Embracing occupational health, safety and environmental protection as cornerstones of our Safety Management Philosophy, MCE shall address hazard, incident and injury prevention with its highest priority concern.

MCE Safety Policies include;

- ✚ ESH Management Plan
- ✚ Risk Assessments
- ✚ Standard Work Procedures
- ✚ Travel Management
- ✚ Fatigue Management
- ✚ Fitness for Work Policy
- ✚ Substance Management
- ✚ Training Policies

These policies and our commitment to safety have resulted in **ZERO** Lost Time Injuries for the past 5 years



Quality

Measurement Control Engineering Pty Ltd is committed to fully meeting its contractual obligations for the quality and reliability of its products in the manufacture, supply, fabrication and installation of Electrical & Instrumentation plant and equipment.

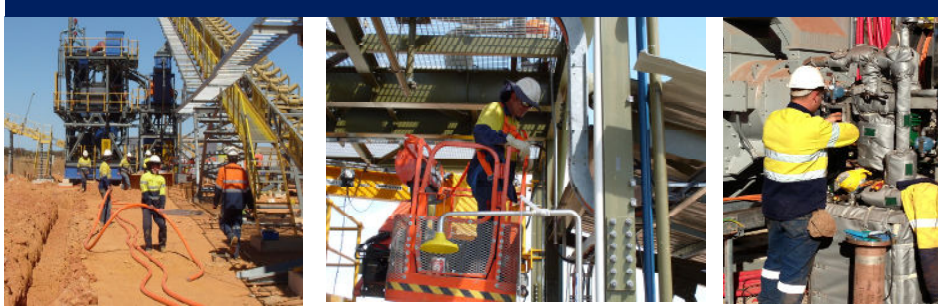


The company believes that success is achieved by:

- ✚ Training & motivation
- ✚ Adherence to documented processes
- ✚ Investigation of system & product deficiencies
- ✚ Implementation of effective corrective action
- ✚ Continuous improvement
- ✚ Assessment of customer satisfaction
- ✚ Establishment & ongoing measurement of performance standards

Senior management are fully committed to the successful implementation and maintenance of the Management System.

It is the responsibility of all employees to actively participate in all related activities.










Product Sales

Our aim is to provide direct access to the best value products, which are suited to mining and mineral processing. We feel these should be simple and affordable products readily available without the delays many multinational vendors are now imposing. These products should also be proven in the field with reliability of supply, repeatability and quality the key selection criteria.



Due to the nature of our business, we have access to a huge range of products, giving us the capability of providing a Total System Solution to our clients.

-  **Pressure**
-  **Temperature**
-  **Flow**
-  **Level**
-  **Analysers**
-  **Control**
-  **Valves**



Calibration

MCE has the facilities to calibrate all types of process measurement instrumentation, either in our workshop or on site. Be it pressure transmitters, flow meters, level transmitters, instrument calibration, temperature transmitters, control valves, weightometers, switches or analysers.



We can perform a wide variety of calibrations at any location. Our experienced team understands that time equals money and when equipment is down, business often comes to a standstill. That is why we offer on-site repair and calibration for all measurement, control and inspection equipment.



Labour Hire

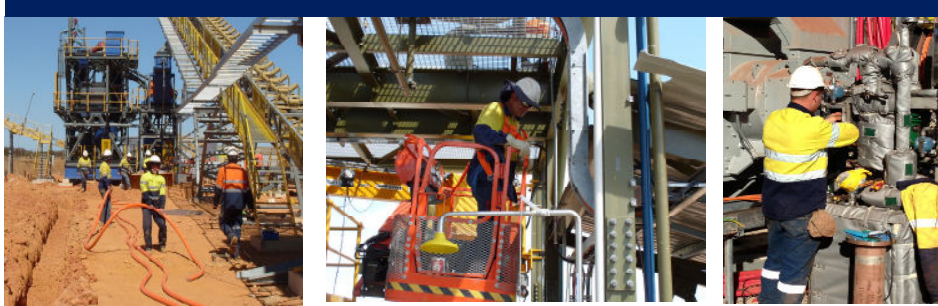
In addition to our Installation and Project services, MCE can also provide Labour Hire and Recruitment for Maintenance, Project and Shutdown requirements.

At MCE we pride ourselves on our ability to help solve problems and find solutions, not add to them. To help facilitate this MCE have offices and fully equipped workshops in both Perth and Kalgoorlie who work together in a team approach under a single line management structure, designed to deliver results.



We see our business as 'managing client workloads' which is far broader than supplying casual and/or permanent staff. For businesses to survive in an increasingly competitive market place, productivity and efficiency of their workforce is imperative.





Manufacturing

MCE can design & manufacture Substations, Switchboards & Control Panels for both Underground and Surface Applications including;

- ✚ Jumbo Boxes
- ✚ Pump Starters
- ✚ Fan Starters
- ✚ Distribution Boards
- ✚ Communications Panels
- ✚ Bore Pump Panels
- ✚ Telemetry Panels
- ✚ Marshalling Panels
- ✚ PLC Panels
- ✚ Instrument Panels

MCE has the facilities to manufacture Substations and Skid Mounted Electrical Equipment for both Underground & Surface Applications



Underground Substation



Pump Starter



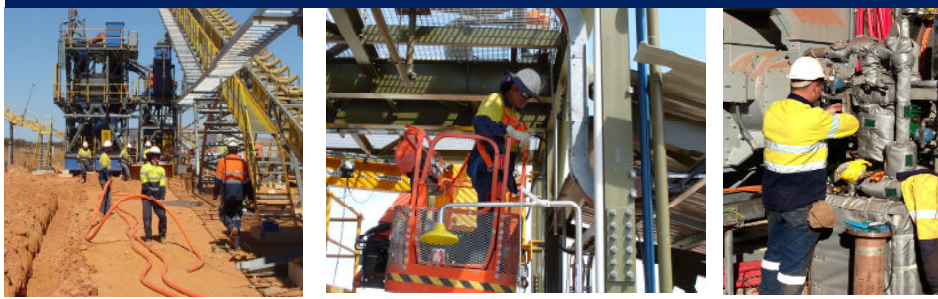
Trailer Mounted Bore Pump Starter/Control Panel



Mechanical Services Switchboard



Panel Manufacturing



Recent/Current Projects:

KCGM

MCE completed the Electrical and Instrumentation Construction Project for the new Gold Retort Kiln and associated upgrade to existing infrastructure for KCGM's Fimiston Mill. This project included the entire E&I scope encompassing Power, Instrumentation, and Control System.

Following on from this successful Project, MCE were subsequently awarded several follow-on projects from KCGM including;

- Flotation Cavitation Project
- Mercury Storage Shed Electrics
- Water Transfer Pipeline Booster Stations
- Mt Charlotte Saline Pumping Automation



COYOTE GOLD MINE

MCE recently completed the Electrical and Instrumentation Refurbishment Project for the Coyote Gold Mine in the Tanami Desert. This project included upgrading of the Electrical Installation to comply with current standards, site wide instrumentation testing and the recommissioning of the entire plant.

ANGLOGOLD – TROPICANA GOLD MINE

MCE have been involved in providing Electrical Services to Tropicana Gold Mine since 2015. We have recently been awarded a five (5) year contract to provide Electrical & Instrumentation Project and Labour Hire Services.

Recent Projects completed at Tropicana Gold Mine Include the following;

CAMP UPGRADE

Electrical & Communications installation for new 180-man camp.

FINES PULPING PROJECT

Electrical & Instrumentation Installation for Fines Pulping Plant and associated infrastructure.

BOREFIELDS

Design Supply & Installation of Borefields Control and Power. Installation of Variable Speed Drives and Communications. Installation of Seepage Bores.

LOAD BANK INSTALLATION

Installation of Load Banks for Testing of Power Station

CHILLER INSTALLATION

Installation of Power & Controls for new Plant Chillers

LIGHTING

Upgrade Site Wide Lighting

AIRPORT UPGRADE

Upgrade airfield Lighting and cabling.
Installation of weather station.

WEIGHTOMETER UPGRADES

Installation and commissioning of new Weightometers

HV RESISTOR BANKS

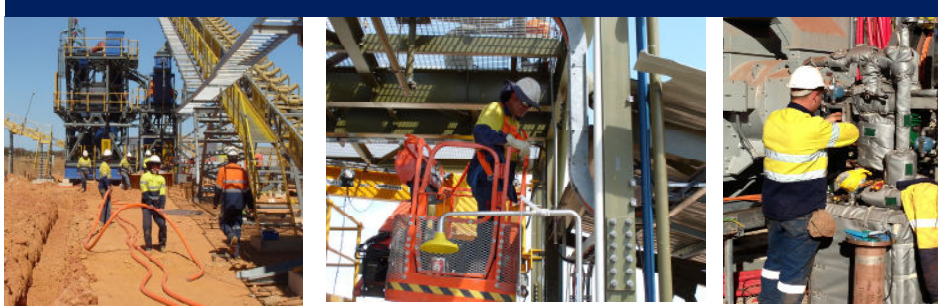
Installation and Commissioning of High Voltage Resistor Banks including all HV Terminations & Testing.

HV LINE MAINTENANCE

Completed Maintenance and Testing of High Voltage Transmission Lines from Power Station to Camp and associated infrastructure.

LABOUR HIRE

Provision of Electrical Supervisor, Electricians, E&I Technicians and Refrigeration Mechanics on an ongoing basis for Maintenance.



COMO ENGINEERS

MCE have been Contracting to Como Engineers completing their E&I projects since 2008.

Recent Projects include the following;

NORDGOLD ELUTION PLANT

E&I installation and Commissioning of Modular Gold Elution Plant in Perth. Following the pre-works, MCE employees were engaged to travel to Nordgold's Russian Mine Site to complete installation & commissioning.

COPPERCHEM GREAT AUSTRALIAN MINE

Refurbishment of existing processing plant and modifications to enable gold processing. Crusher refurbishment & Upgrade. Gold Room, Burner & Gravity Circuit Installation & Commissioning.

MODULAR ELUTION & GOLD STRIPPING

MCE have been involved in numerous Modular Gold Elution & Stripping Plant Construction Projects for COMO Engineers. The majority of these plants are destined for overseas clients therefore these are constructed to the relevant standards of the destination Country;

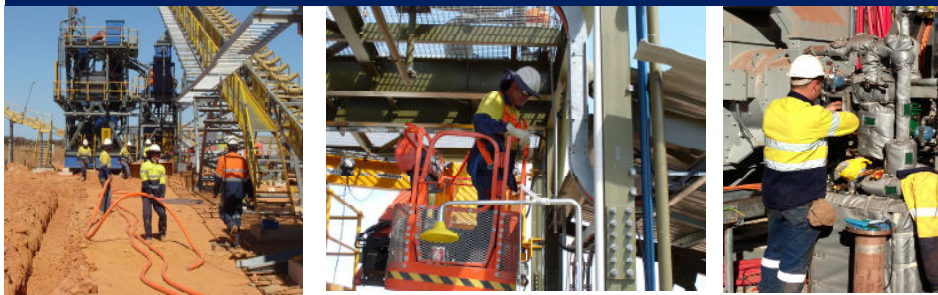
- Manub Gold – Sudan
- Moose River Gold – Canada
- Nordgold – Russia
- Managen Group – Sudan
- CPL – United Kingdom
- Wallace Gold – Mt Isa
- Sukari Gold – Egypt
- Granny Smith Gold – Laverton
- Twangiza Gold – Congo

PLANT UPGRADES & REFURBISHMENTS

MCE have undertaken the following plant upgrades and refurbishments for COMO;

- 3 Mile Gold Mine – Coolgardie
- Hanking Gold – Marvel Loch
- Imerys Talc – Three Springs
- Coyote Gold Mine – Tanami





Mining Projects

Ore Sorter Plant

Location - Jabiru, NT

Client - Energy Resources Australia

Description

MCE completed the E&I Construction Project for the new Radiometric Treatment Plant at Ranger Uranium Mine. This project included the entire E&I scope encompassing the High Voltage, Medium & Low Voltage, Instrumentation and Control System.



A new HV installation including transformers and substation was included.

Jaguar Processing Plant

Location-Northern Goldfields, WA

Client-Como Engineers

Description

MCE completed the Electrical and Instrumentation Construction Project of the new Crushing and Conveying circuits for Jaguar Metals. This project included the entire E&I works for the two stand alone Cone Crushers including the HV Installation and installation of transformer & substation



Power Projects

Gas Turbine Installation

Location - Minara Nickel

Client - Kiewit Australia

Description

MCE completed the Electrical and Instrumentation Project for the new GE Gas Turbine and associated infrastructure for Minara's Murrin Murrin Mine. This project included the entire E&I scope encompassing the High Voltage, Medium & Low Voltage, Instrumentation and Control System.



A new HV installation including transformers, substation and interconnection to the existing HV system was included.

The entire Electrical Scope was completed prior to SMP, ahead of schedule and on budget.



Infrastructure Projects




MCE have completed numerous infrastructure projects for both Mining and Municipality Clients.



These projects include:

-  130 Man Mining Camp
-  220 Man Mining Camp

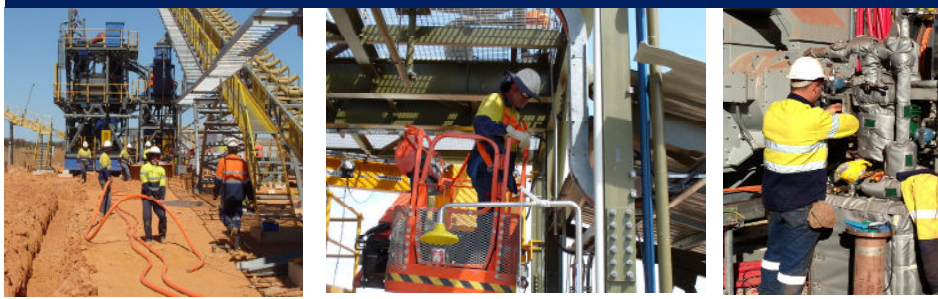


-  Airport Upgrade at Leinster WA
-  Street Lighting Project for Kalgoorlie Council
-  Kalgoorlie Golf Course Power Reticulation



-  Kalgoorlie Sports Grounds Lighting





Client Testimonials

“Mark, we need to congratulate you and your team on all the hard and efficient work. You have demonstrated that electrical can finish ahead of SMP”.

Carlos E. Pineda
Kiewit Australia

“Jeff, I want to say how much I appreciate the efforts that you guys provided at Murrin and getting us across the finish line. It was truly a team effort and Minara seems to be very satisfied with the product that we all produced for them”.

EJ O’NEILL
General Manager
Kiewit Australia

“Measurement Control Engineering has been contracted to us in several of our key projects since mid 2012. I have found them to be a highly professional company who have always delivered a high quality electrical/DDC installation. Their team of employees were clearly highly skilled in their craft as we consistently had positive feedback from our clients with respect to the quality of their installation and their performance onsite. MCE worked closely with our engineering teams to deliver a high quality product that performs well in tough environments.

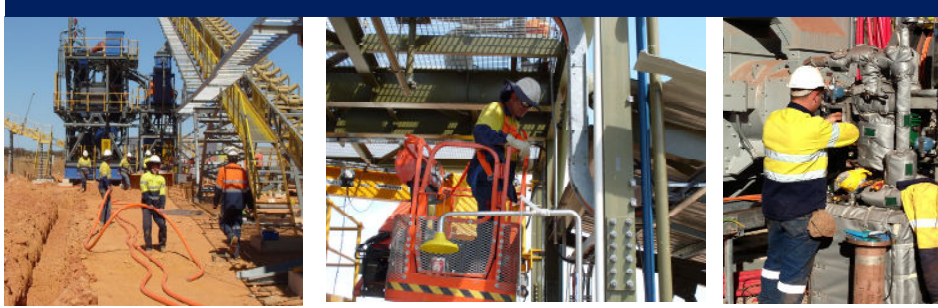
Matthew Slack
Operations Manager, WA
Honeywell Ltd

I have been involved in the St John of God hospital redevelopment project for the past four months. In this time I have found MCE to be a reliable and helpful sub-contractor. Considering the nature and tight time frame on all aspects of the project MCE have completed all areas by the required dates with professionalism and quality

Matt Tilbury
Brookfield Multiplex Australasia

Jeff, just a quick note to express our thanks to Wayne and your team for the professional support given in the independent Site HSE Audit carried out earlier today. The MCE guys have been going great up to this point, the whole BM team have noticed their efforts and welcome their dedication to the project.

Mike Street
Project Manager
Honeywell

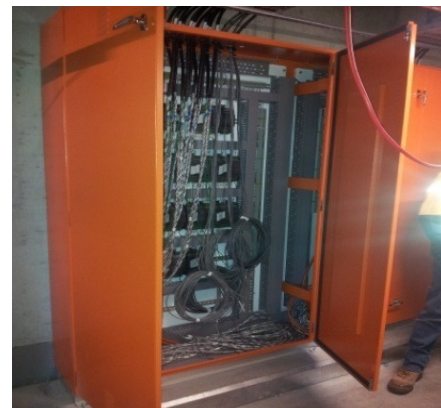


Commercial Sector

In 2011 MCE expanded its operations and established operations in the Perth metro area. For years our company has built a reputation in the WA mining resources sector as being an electrical contractor that delivers on its promises, a company that delivers a product above and beyond its obligations and a company that values client satisfaction.

Since opening our Commercial Electrical Division, MCE have been involved in the following Projects throughout Perth and Regional Western Australia;

- ✚ Fiona Stanley Hospital
- ✚ St John Of God Hospital
- ✚ NBN Satellite Stations – State-wide
- ✚ Warnbro Shopping Centre Development
- ✚ Crown Entertainment Complex
- ✚ WA Institute of Medical Research
- ✚ CSIRO
- ✚ Kalgoorlie Regional Prison



At MCE we have never deviated from our key objective;

To be recognised as an electrical contractor who delivers a project safely, on-time and to a high standard of workmanship and quality unmatched by our competitors



MCE

Measurement Control Engineering

**ELECTRICAL, INSTRUMENTATION
& AUTOMATION**

CLIENTS

