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Capabilities Statement



## **Introduction and Company Overview**

From Humble beginnings Paul Bauer as a sole electrical contractor in 2005, has built Major Electrical from the ground up to evolve into an electrical systems specialist supplier to multiple industries.

Our business covers the mining, heavy industrial and commercial sectors, and is rapidly expanding in Mackay and surrounding areas. We pride ourselves on our reputation for completing projects on time and to the highest quality with the customers end goal in mind.





#### **Our Mission Statement**

To provide a level of service that will exceed the expectations of our clients, maintain the highest level of quality and allow our employees the opportunity to grow and prosper. To install confidence with all parties by professionally managing all aspects of each project be it large or small. Major Electrical differs from all others by our way of operating. We are a family-owned company servicing and supplying multiple electrical systems to majority of industries. We retain great client relations and high employee moral because we know without either of these we will not succeed. We maintain all the capabilities of a large multinational company but with the eagerness, care and nimbleness of a family owned and operated business.

#### At Major Electrical we:

- > Aim to supply a high quality and versatile service to all our clients, delivering the best value at all times whilst continuing to develop our people skills through advanced training opportunities.
- > Make continuous improvements to our service and people a prime factor in our continual success.
- > Operate an open and honest relationship with all of our clients including, joint decision making processes, agreed objectives and anticipated goals.



#### **Our Values & Vision**

We act with enthusiasm in all interactions whilst never compromising ethics. This is the cornerstone of who we are as a Company and is essential to our future success.

#### The company has clear values, which are:



**Safety** – we care about people and their safety – we ensure safety procedures are followed closely and no compromise is ever accepted.



**Reliability** – we take pride in being reliable, meeting deadlines and delivering on time.



**Responsiveness** – we listen to what you say, are approachable and ensure to accommodate your wishes in our designs where possible.

Major Electrical has a proven track record of effectively delivering diverse projects to a broad range of customers

#### We are:



**Dedicated** – proactive and dependable



Agile – flexible and smart



Measured – we make carefully balanced decisions



Time Orientated – we work within our time limits and deliver on time

## Certified System

#### **Accreditation**

We are proud to have our ISO 9001 Quality Management System, are certified as a Group I, Group II, Ex'd Ex'e' hazardous areas workshop in Queensland and New South Wales. We are also accredited for manufacture of Ex'd equipment.



Supply & Installation of multi-complex electrical systems throughout multiple industries, designed

to meet the strict criteria of relevant Australian Standards and Regulations.

Major Electrical operates an accredited Quality Assurance System complying to the requirements of ISO:9001 for repair, overhaul, and maintenance of electrical equipment of both hazardous and non-hazardous areas. We are also certified by SAI Global for design and manufacture of complex electrical machinery and systems. Our Paget workshop is certified to repair, manufacture, and overhaul electrical equipment for explosive atmospheres to AS/NZS 3800.

#### **Workshop and Engineering**

- > Testing and commissioning
- > Engineering and design
- Manufacture of hazardous area equipment
- Design of hazardous area systems
- Project management
- > Hazardous area overhauls and audits
- Pump starters and motor starters
- Soft-starter and variable frequency drive control panels
- Switchboards and control panels
- Earth grid design and install
- > Switchrooms
- > IP Equipment design

#### **Site Services**

- Data and communications networks
- Air conditioning installation and maintenance
- Underground sub-divisions (Ergon accredited)
- > HV reticulation and sub-yards installation and maintenance
- > Plant and machinery breakdown repairs and maintenance
- > Transformer repair and maintenance
- HV and LV overhead line work up to 66kV
- Pole inspections and maintenance
- Thermography (nationally accredited)



www.majorelectrical.com.au

#### **Work Place Health & Safety**

#### **Major Electrical ensures:**

- > We maintain a management system based on the requirements of **AS/NZS4801**, **WHS Act and Regulations**. WE have a commitment to comply with relevant WHS legislation and other requirements.
- > Health and safety of all employees, visitors and contractors by eliminating or controlling risks and reducing injury.
- > Assessment and elimination or control of hazards.
- > After a workplace assessment, provide all employees with personal protection equipment to comply with our policies i.e. Hats, safety glasses etc.
- > All employees are suitably trained to satisfy legislative requirements and our objectives including higher job and hazard awareness.
- > All employees are encouraged to participate in the safety awareness programs, toolbox talks, safety meetings, safety audits, hazard identification process and comply with legislative requirements.
- The employees are consulted on matters relating to their workplace using the Toolbox talks/ Team Meetings.
- Measurable objectives and targets are set during the Management Review process and reevaluated during subsequent reviews to ensure continued improvement, the aim is to eliminate work-related injury or illness.
- > This policy is included within the Induction Process to communicate the details with all employees and reviewed during the Management Review process.

We have integrated our safety and quality requirements into our management system to provide the management with the tools and methods to achieve our objectives.





#### Clients by Industry/Sector

We are proud to have worked with Glencore, Kestrel coal, Fitzroy resources, CS Energy, Mackay sugar, Mastermyne, Mackay ports, Ergon Energy, Rio Tinto, BMA, Anglo American, Xstrata and the Queensland Government

#### **Products/Services**

Supplying Mackay and the Bowen Basin with safe electrical services & Products.

With a team of highly qualified and experienced electricians who are driven by a "can do" attitude, there is no one better than Major Electrical Pty Ltd to complete your next project, on time and on budget. Commercial or domestic – our steadfast commitment to safety and quality remains the same.

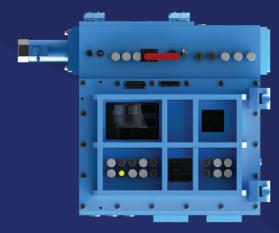
#### Flameproof Boxes

The MJE 100 series of enclosures consists of three flameproof enclosures that can be configured separately or in combination. The three separate enclosures are identified as enclosure A, B and C.

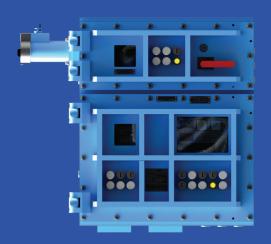
#### **Enclosure A**

Enclosure A has approximate dimensions of 850 mm wide x 660 mm high x 400 mm deep and contains electrical equipment such as a circuit breaker, PLCs, control relays, a transformer, control components, displays, switches, terminal strips etc. The enclosure has a hinged and bolted door fastened to the front of the enclosure via eighteen M16 socket head cap screws. The door is reinforced with external braces welded to the door and may incorporate up to one large and one small polycarbonate viewing windows. Metric threaded entries are provided in the door for the fitting of separately certified devices. Metric threaded entries may be provided in the enclosure side walls and top, bottom and back plates for the fitting of separately certified devices. Mounting pads consisting of plates welded to the enclosure may be provided on the enclosure side walls and top and bottom plates for the fitting of separately certified receptacles and cable coupling devices. A main circuit breaker operator may be provided in the sidewall.









#### **Enclosure B**

Enclosure B has approximate dimensions of 850 mm wide x 370 mm high x 400 mm deep and contains electrical equipment such as a circuit breaker, PLC, Ethernet switch, control relays, a transformer, a display, control components, switches, terminal strips etc. The enclosure has a hinged and bolted door fastened to the front of the enclosure via fourteen M16 socket head cap screws. Metric threaded entries are provided in the door for the fitting of separately certified devices. A main circuit breaker operator may also be provided in the enclosure door. Metric threaded entries may be provided in the enclosure side walls and bottom plate for the fitting of separately certified devices. Mounting pads consisting of plates welded to the enclosure may be provided on the enclosure side walls, top and bottom plates for the fitting of separately certified receptacles and cable coupling devices.

#### **Enclosure C**

Enclosure C has approximate dimensions of 850 mm wide x 250mm high x 400 mm deep and contains electrical equipment such as a circuit breaker, a transformer and switches. The enclosure has a hinged and bolted cover fastened to the top of the enclosure via sixteen M10 socket head cap screws. Metric threaded entries may be provided in the enclosure top, bottom, front and back plates for the fitting of separately certified devices. Mounting pads consisting of plates welded to the enclosure may be provided on the enclosure side walls and top plate for the fitting of separately certified receptacles and cable coupling devices. A main circuit breaker operator and pushbutton and switch operators may be provided in the front plate of the enclosure.



#### **Enclosure Cab**



#### **Led Strip Lighting**

Strip-R Lighting in Non-Explosive Risk Zones Has Special Installation Requirements Due To The Length Of Strip Required To Illuminate The Vast Distances.

Major Electrical has extensive experience in installing and managing LED Lighting in the mining industry.

#### **Strip-R Lighting**

Major Electrical was engaged to provide a design and the supply of roadway lighting for the Transport Drift, Conveyor Drift and Travel Road Lighting of an underground colliery.

Major Electrical manufactured 50 lighting enclosures and supplied 4kms of STRIP-R Lighting, using STRIP-R (36V 60LEDs/M) Lighting Strings. This gave an approximate LUX level of 38 LUX per meter underground. STRIP-R Lighting, is an LED strip lighting for non-explosive risk zones. The best lighting available in the STRIP-R range is 60 LEDS per meter. This was used in this project to achieve optimum lighting for the area.











#### **PAUL BAUER Managing Director**

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Paul Bauer launched Major Electrical in 2008 as a self-sufficient on-site electrical supplier for all industry types within the Mackay and Bowen Basin. Paul has worked in the electrical industry since 1994 and has extensive experience in commercial, industrial, and heavy mining sectors, including works such as transformer installations and maintenance: earth grid design and installations, project management, overhead underground line work and seam gas installations.

#### **MICHAEL HAND** Operations Manager

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Michael has worked in the Mining Industry Since 2005 in roles that include onsite project management, system Support, management, design of electrical systems & workshop Coordination roles. Michael has also worked in the Ventilation Industry, managing the design, construction and installation of ventilation systems across Australia. He is a qualified Signatory to AS3800 assisting with the design and manufacture of Major Electricals Exd range of equipment. Michael is committed to providing a cost effective, high quality solution to our clients with any issues they may face.



### Previously completed/capabilities works

#### Design supply and install:

- Design supply and installation of a
   470KW 11KV -3.3KV goaf dewatering
   electrical project. This project includes 2 x
   switch rooms and remote ring main unit
   skids.
- Main vent fan electrical design, supply, and installation of bleeder fan system. This system included 11KV 2MVA substation connect to OHPL and a 415V multi control MCC without door shelter relocatable. System was designed for upcast/ downcast modes with 2 x Gordon brothers chillers connected for ventilation change. Project was designed to be relocatable between longwall moves.
- Design and assist SKF vibration monitoring system for Group I & II EX for gas plant and ERZ1 including site installation.
- Electrical supply design of UG Lighting systems for multiple mine sites. Includes supply feeders, transformers, and lighting project kits. Major electrical also supply Strip-R lighting in multiple voltages and lengths. 1 x supply enclosure can supply 168m of area with our new custom-built lighting enclosures.

- Cable Drop hole assemblies including 13 comms cables with RPEQ head stay.
- Site wide UPS upgrade system and design review. Working with OEM and integrating new UPS's across the whole site up to 120KVA.
- Installation of Main vent fan 120KV uninterruptable power system to feed all aux power to site main vent system. This including an insulated switch room to contain batteries and UPS along with design and integration.
- Pumping system design through integrated partner.
- Design of underground Pump stations. Including MCC supply remote plug and play station and Citec operated system.
- Design, supply, and installation of new offices/ Go-line and muster area electrical package including HVAC works, Turnstiles, Fob Readers & Comms.
- > Upgrading Callide's lighting systems to match current hazardous area zoning.
- Containerized pumping station electrical design and PCS completion for a remote mine site.
- Review and assistance with HA compliance in train load out tunnel ventilation upgrade for hail creek mine.
- Pole top transformer changeout on long island. Helicopter used for transformer replacement



#### Project management/ site labour:

- Site project management/ Supervision/ relief and assistance with multiple projects
- PCS shift relief through integrated partner including development of PLC coding function descriptions.
- Powerlines through integrated partner
- > EEM Shift relief through integrated partner
- Onsite Variable Speed Drive Commissioning
- Seam gas shift relief and electrical projects
- Supply and installation of lightning protection systems. Including goaf lines to large project installation protections systems.
- Design and supply of software system with integrated partner.
- Design and installation of Site remote gate system

- Installation of UG Fibre systems and reticulation. Installations including earthworks, terminations, Fobots, Pits and design.
- Site installation of HVAC equipment
- Conversion of callide power station HA Tripper stockpile system. Design supply and installation of Ex equipment. Project was completed during power station shutdown.
- Design assist, supply, and installation of BHPS digital radio tower project along with switch room supply for autonomous vehicle operation.
- Design assist supply and installation of Hail creeks ROM dust suppression system with 600M + of under bored mains system into the existing wash plant.



#### **HA Works:**

- > Site intro of mining equipment surface and underground
- Aquila and Grosvenor longwall certification review and site intro. This includes reviewing all dossiers and documentation, developing hit lists and obtaining suppliers documentation. Weekly reported back to site including physical inspection of components.
- > Underground C1's various sites.
- Relocation of 11KV Main ventilation system including 66KV-11KV Substation. System required a 66-11KV OHPL Substation feeding a 11KV Switch room and 2 x main vent fans to be relocated and rewired. This also included a Pump station installation and 5Klm UG fibre installation.

**Hire Equipment** 

- Winches
- Substations
- > DCB's
- > Generators
- > Earth moving equipment
- **>** Starters
- Haulage equipment
- Other various electrical equipment







#### **Workshop Capabilities:**

- Overhaul of all HA equipment including the below
  - > Aux Fans
  - > Main vent fan
  - > Pod pumps
  - UG TX's
  - Mobile boot ends
  - Breaker feeder
  - **>** DCBS
  - > Shuttlecar
  - > Salvage packs
  - > Drill rigs
  - > Any other Exd equipment
- Multi supply testing system 110v, 415V, 1000V, 3300V & 11Kv
- > Pump test facility
- > Manufacture of IP mining equipment
- > Mine site compliance works
- Manufacture switchrooms

Supply and design of our MJE series EXD enclosures and electrical packages including the below

- > 23 -26M3 aux fan package with ME enclosure
- Pump pods up to 200KW
- IPD Starters
- Crib time supply (powered crib rooms)
- J-boxes for power
- Mobile boot ends
- Other various systems



#### **Completed Projects:**













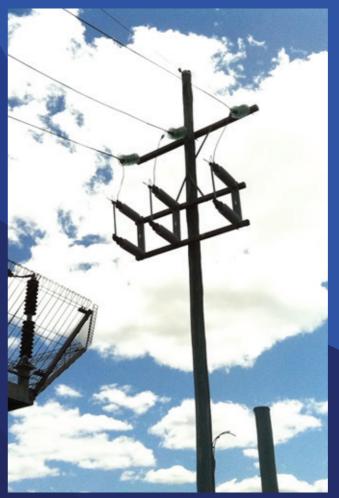














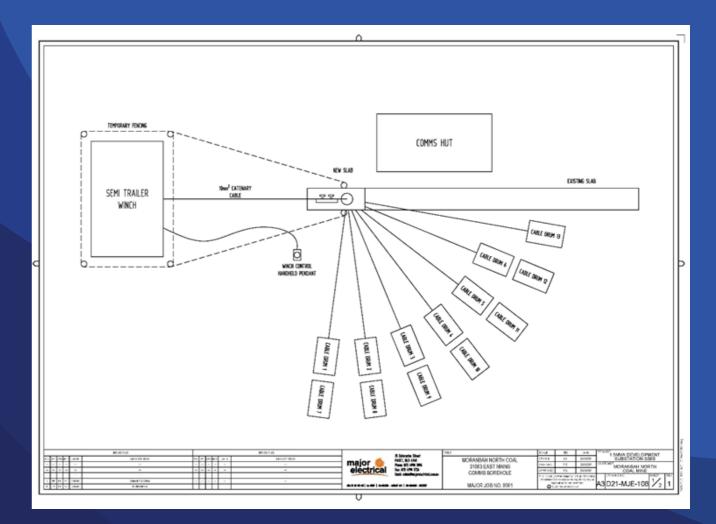


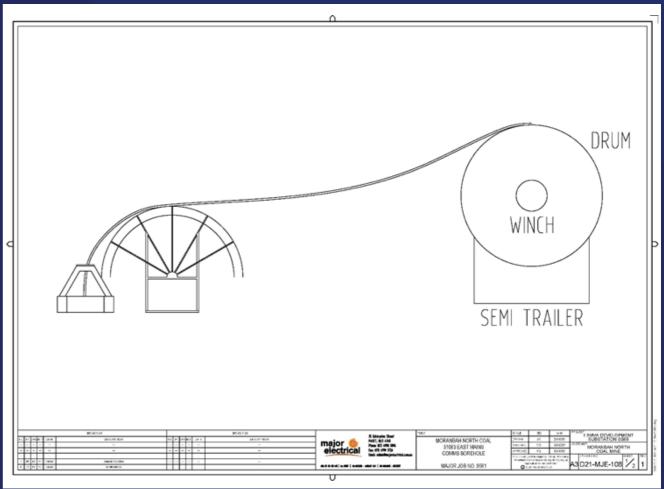














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