



Capability Statement

Greater Engineering™

At GTE we do things differently.

We want to challenge the norm and strive to have greater technical expertise, greater flexibility, greater collaboration and greater integrity to enable us to deliver on our promise of *Greater Engineering™*.



WHAT WE KNOW

GTE are experts in delivering technology and engineering solutions, providing significant and sustainable improvements to our clients' operations. Our capabilities cover the entire project lifecycle from initial concept to operational support services.

We specialise in delivering high quality technology and engineering solutions with a primary focus on delivering value to our clients.

GTE has extensive engineering and project management experience across a wide range of industries and processes on both greenfield and brownfield projects. We know the importance of overall equipment effectiveness in your plant and interface

our work fronts seamlessly with your operation.

Our team has extensive operations experience and recognises the importance of minimising downtime and operational impacts. Our capability extends across the entire project lifecycle from concept and feasibility studies to engineering design, technology trials, project delivery and operational support services.



WHAT WE DO

GTE's capabilities cover the entire project lifecycle, from concept and feasibility studies, to engineering design, technology and automation trials, project delivery and operational support services.

Our people are specialists in Automation and Process Control, Electrical Engineering, Project Management and Site Support.



CONTROL SYSTEMS

- ✓ PLC design, programming, commissioning, troubleshooting and maintenance
- ✓ SCADA system design, configuration, commissioning troubleshooting and maintenance
- ✓ 24/7 control system maintenance support, both remote and on-site
- ✓ Optimisation, tuning and efficiency improvements for process plants, mobile machines and fixed plant mining equipment
- ✓ Control system audits for compliance with asset integrity plans
- ✓ Project lifecycle documentation including functional specifications, test documents, change management documentation, stakeholder requirements specifications, asset management documentation and scopes of work
- ✓ Mobile machine protective device audits
- ✓ Implementation and use of high-speed data acquisition systems for detailed analysis and tuning of fixed plant



FUNCTIONAL SAFETY

- ✓ Application of process safety standards (AS 61511)
- ✓ Application of machinery safety standards (AS 62062, AS 4024, ISO 13849)
- ✓ Application of electrical, electronic, and programmable electronic systems safety standards (AS 61508)
- ✓ Burner Management Systems (BMS) and AS 3814 expertise
- ✓ Development of Functional Safety Management Systems (FSMS)
- ✓ Development of Functional Safety Competency Management Systems (CMS)
- ✓ Creation of Functional Safety Management Plans (FSMP)
- ✓ Verification and validation planning
- ✓ Facilitation or support of hazard and risk analysis workshops (HAZOP, HAZID, LOPA)
- ✓ Development of Safety Requirements Specifications (SRS)
- ✓ Safety Integrity Level (SIL) or Performance Level (PL) design verification
- ✓ Design of Safety-Related Control System/Safety Instrumented System hardware and software
- ✓ Pioneering sophisticated safety rated systems for autonomous machines
- ✓ Independent safety audits and Functional Safety Assessments (FSAs)
- ✓ Safety-Related Control System/Safety Instrumented System validation
- ✓ Development of maintenance and test procedure documentation



ELECTRICAL ENGINEERING

- ✓ Low voltage and high voltage power distribution design
- ✓ Power system analysis, including short circuit, protection coordination, load flow and arc flash hazard studies
- ✓ Lighting studies as well as general lighting and small power design
- ✓ Drive starters design, including direct online starters, rotor resistor cubicles, variable speed drives, soft starters, etc
- ✓ Equipment selection via technical reviews and specifications
- ✓ Safety circuit design to statutory and functional safety requirements
- ✓ Contract packages management, from tendering, progress monitoring, factory acceptance testing to closeout
- ✓ Management and support for commissioning and construction activities



VVVF DRIVES

- ✓ Development, management, and execution of drive asset management strategies
- ✓ End of life drive upgrades
- ✓ Drive troubleshooting, maintenance and repairs
- ✓ Drive performance optimisation for power consumption, mechanical wear and motor health
- ✓ 24/7 service and support
- ✓ Drive downtime analysis
- ✓ Training on drive maintenance and troubleshooting



COMMUNICATIONS

- ✓ Network architecture planning and design to develop robust, secure, and scalable networks
- ✓ Switch hardware/firmware upgrade strategy development including shutdown planning and execution
- ✓ Switch configuration, factory acceptance testing and site commissioning
- ✓ Detailed documentation development such as upgrade methodologies, test documents and engineering drawings
- ✓ Industrial Cyber Security
- ✓ Switch compatibility testing including system integration testing with control system devices (PLC, SCADA)
- ✓ Switch & operational equipment/PLC impact assessments
- ✓ Firewall audits and design
- ✓ WAN design and implementation
- ✓ Site and remote support
- ✓ Network and communications standards development
- ✓ Regulatory compliance



DESIGN

- ✓ Engineering design drafting in AutoCAD and MicroStation
- ✓ Preparation of sketches to facilitate design and construction activities
- ✓ Site based as-building of electrical and controls installations
- ✓ Preparation of all standard electrical drawings including schematics, termination diagrams, single line diagrams, general arrangements and equipment layouts
- ✓ Preparation of piping and instrumentation diagrams



GTE

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HOW WE DO IT

At GTE our philosophy is simple, it is all about great people. People are the key to GTE's success; therefore, we cultivate a supportive, fun and flexible team environment where everyone can thrive and excel in delivering their personal best every day.

We like to think outside of the box and step out of our comfort zone, and we value the individual differences in all our people. It is their multi-faceted experience, operational exposure and unique thinking that have built the foundations of our company.

We pride ourselves on the relationships we build and the commitment we make to delivering cost effective tailored solutions beyond what is expected.

We advocate the values of Safety, Quality, and Integrity. We foster an open and friendly approach to everything we do, where our workforce and clients alike can support each other to achieve a common goal.

WHAT WE VALUE

- ▲ **Safety** - We work hard to ensure safety is front-of-mind for all of our people and is our highest priority in the way we work.
- ▲ **Quality** - Delivering the highest quality services with strong engineering foundations in our processes. The output of our work is predictable as we follow a rigorous and repeatable process.
- ▲ **Integrity** - Carrying out work in an ethical and professional manner to deliver on our promises. Doing what we say we will do.