

ENGINEERING SOLUTIONS FOR SUCCESS

ABOUT US

Prominence Solutions is a multi-disciplinary engineering service provider dedicated to providing exceptional solutions for the Australian resource industry.

Our core competencies include:

- Design Engineering: Innovative and efficient design solutions.
- FEA/Structural Simulation: Advanced analysis for optimal performance.
- CAD Design & 3D Modelling: Precise and detailed visual representations.
- Reliability Engineering: Ensuring long-lasting and dependable systems.

We apply our expertise to a wide range of applications, including:

- Processing plants
- · Bulk material handling systems
- Air pollution control equipment
- Reverse engineering
- Precision part design

To further support our clients, we offer reliable technical staffing services tailored to their specific needs.





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SERVICES OFFERED

Mechanical Engineering

Piping Engineering:

- Process piping systems design & layouts,
- Pipe Stress Analysis Using Autopipe and CEASER
- Fluid flow modelling in pump and piping system design for Newtonian and non Newtonian fluids, CFD Modelling
- Hydrodynamic design for system protection from water hammer,
- Pneumatic conveying systems for bulk material transfer



Design and Drafting:

- 2D and 3D Modelling and Drafting: Our services encompass all of the following: steel detailing, structural detailing, structural modelling P&ID drawings, mechanical piping drawings, electrical drawings, process drawings, shop drawings, & engineering drawings. Our attention to detail and adherence to drafting standards guarantee accurate and professional deliverables.
- We leverage advanced 3D laser scanning technology to capture

precise 3D data of physical structures, delivering critical insights for Building Information Modelling (BIM), industrial facility management, and infrastructure development.

Static Equipment Design & Inspection:

- Pressure vessel design & modifications to AS1210/AS3788/ ASME and 3rd party design verification,
- Vessel statutory compliance management.
- Pressure vesel fit for Service
 Assessments and Fatigue analysis.
- Aboveground Storage tank design per API650 and their modification and repair scopes as per API653 requirements
- FEA for mechanical and structural \ designs using Autodesk Nastran, Ansys
- Statutory inspection of Pressure Vessel, Tanks and Lifting equipment
- Statutory compliance management assistance associated with operational management of registerable plant, pressure equipment and lifting equipment per WorkSafe (WA) 2022 requirements.



Reliability Engineering

We provide expertise to our clients to improve the reliability of their assets or systems across your portfolio through application of sound engineering practice and improvement methodologies.



Predictive Maintenance Programs:

Design and implement predictive maintenance strategies using data analytics, condition monitoring, and failure prediction techniques to reduce downtime and extend asset life.

Operational and maintenance readiness:

Our experts can assist with operation readiness activities with smooth transition from project stage to delivery stage.

Reliability Analysis:

Proven experience in performing reliability assessments using methodologies like:

- FMECA (Failure Modes and Effects Analysis)
- Fault Tree Analysis (FTA)
- Preventative Maintenance Optimisation (PMO)
- Criticality Analysis
- RAM Study
- Equipment Life Cycle Cost Modelling
- Analyse the data and develop Power BI
- Semantic models and reports.

Defect Elimination and Root Cause Analysis: In-depth capability in investigating and identifying the root causes of failures, providing actionable solutions to mitigate recurrence and improve system performance.

Predictive Sigma ReliabilityMode Meibull Weibull Weibull Management Cause Analysis MEA Forcess Failure Centered Continuous Root Improvement Manufacturing

Civil and Structural Engineering

We provide structural engineering designs from conceptual design to detailed design for resources sector and residential buildings as per requirements of AS4100:

- Detailed Design & drawings, specifications, and calculations.
- Structural certification to ensure the safety, stability, and compliance of residential structures.
- Finite element modelling primarily with Spacegas for rail, roads, haul roads, and other non-process mining infrastructure.
- Liaison with regulatory authorities and obtaining necessary approvals and permits.



Our consultants have accreditation to complete ALCAM assessments for the Fortescue Eliwana Project level crossings and possess extensive experience in designing rural highways for Main Roads particular for Main Roads Pilbara Region and Kimberly Region.

Training:

Registerable plant compliance management (1 Day)

We provide Training Programs in pressure equipment and lifting equipment (formerly known as classified plant) Statutory Management as per the latest WorkSafe Regulations (2022) requirements.

Pump & Piping System Training (1 Day)

The goal of this course is to provide essential foundational knowledge for the efficient operation and maintenance of centrifugal pump and piping systems in process plants, with a focus on reducing costs related to pump ownership and operation. This training will equip you with the skills needed to design more efficient and effective pumping systems.

