JMDENGINEERING CAPABILITY STATEMENT





Revision Date: April 2020

For further information please contact:

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www.jmdengineering.com.au





ABOUT JMD

JMD Engineering was formed in 2007 and is a leading provider of engineering design, drafting and project delivery solutions for materials handling and mineral processing operations. With offices located in Perth and Bunbury, Western Australia, JMD are a highly experienced team of more than 25 dedicated professionals.

JMD have a proven track record of delivering successful project solutions, from small operational improvements to major plant expansions, for a wide range of clients.

JMD's diverse skillset and broad capabilities have been developed over 13 years' successful operation. Our in-house team of design, engineering and project professionals work collaboratively, forming close relationships with our many clients in order to understand and directly cater to their needs. Every member of the JMD team is aligned with JMD's core goal of adding value to our partnering clients and delivering quality outcomes, every time.



JMD's multi-disciplined team can provide project support to assist you with the development of your operation or processing plant including:

- > Creation or modification of site plans from concept through to detailed survey layouts
- > Creation or modification of Process Flow Diagrams (PFD's) and Piping and Instrumentation Diagrams (P&ID's)
- > Process improvements including capacity upgrades
- > Engineering design of equipment according to project requirements
- > Engineer certified and detailed fabrication packages for plant infrastructure
- > Complete Project Management function including Quality Assurance during project execution
- > Supply, installation and commissioning of plant & equipment

For further information please contact:



Process Plant & Equipment Design

JMD has extensive experience in delivering process plant design and plant upgrade solutions across a wide range of minerals and commodities. Our multi-discipline design specialists have knowledge and expertise in designing process plants from simple crushing and screening circuits through to more complex processing plants.

JMD can assist in process plant design from feasibility through to detailed design and drafting. We utilize a range of 3D modelling software to ensure accuracy of design, integration of disciplines and client collaboration.

Our process plant capabilities include development of flowsheets, process flow diagrams, piping & instrumentation diagrams, project capital estimates, conceptual plant design, detailed design & shop detailing, project management, construction and commissioning support.

JMD have completed a wide variety of process plant design projects including gold CIL circuits, tailings facilities, elution circuits, gravity circuits, material storage and load out plants, slurry storage and unloading, minerals concentration plants, tailings reprocessing, dense media separation and water treatment plants







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Materials Handling Design

JMD have extensive knowledge and experience in the design of materials handling systems ranging from standard conveying, chutes and hoppers through to unique and custom handling systems.

Our design capabilities include ROM, crushing and screening, conveyors (overland, inclined, radius), static & rotating stackers, feeders (belt, apron, screw), bucket elevators, bins, hoppers, silos, transfer stations, port facilities, shiploading, road and rail and slurry pipelines.



Our experience spans across a wide variety of ore & materials including grain, gold, iron ore, mineral sands, bauxite, alumina, manganese, diamonds, spodumene, copper concentrate and coal.



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Pumping & Piping Design

Utilising a range of flow modelling software and a wealth of knowledge and experience, the design of pump and piping circuits is a core capability of JMD.

JMD can provide a full spectrum of fluid mechanic design and support services including slurry pumping systems, pipeline and pumping systems, slurry rheology analysis, site investigation and audits, system optimization and installation and commissioning support.

Previous slurry pumping and pipeline projects include tails pumping, waste disposal, thickener underflow, mill discharge, cyclone feed and various other Newtonian, Non-Newtonian and settling slurries.

JMD have also completed numerous water system design projects including pumping stations, decant return, thickener overflow, process water supply systems, potable water systems, fire water systems and gland water systems.

Our project experience also extends to the pumping and piping of other media including natural gas, acids and reagents.









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Infrastructure & Civil Design

JMD's multi-discipline capabilities extend to the provision of Infrastructure & Civil engineering and design. Our comprehensive design capabilities are founded on engineering expertise and project-based practical experience.

Our project experience includes processing plant civil infrastructure, mine site infrastructure developments, bulk earthworks, road design and upgrades (to WA Main Roads requirements), carparks, drainage systems, culverts and sumps.









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3D Scanning & Site Measurement

Employing the latest 3D laser scanning technology for over a decade, JMD has established an efficient and effective workflow to collect site data and integrate it accurately into our designs. This allows us to develop design models and ensure full consideration of existing infrastructure and elimination of any potential maintenance or site construction issues.

Overlaying 3D scan data with detailed models provides an interactive design approach for both internal design development and client operational and maintenance reviews.









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Specialised Engineering

In addition to the project-based engineering services JMD provides, we also provide specialised engineering services to our clients. These include product design, finite element analysis (FEA), structural audits, specialised process applications, instrumentation and electrical control solutions.

Our capabilities also include engineering design and certification of classified plant including process and pressure vessels, storage tanks, crane and lifting equipment and associated plant infrastructure

The team at JMD come from a diverse range of backgrounds and with a collaborative, results-focused approach being at the core of all JMD activities, we will bring significant knowledge and experience to bear on any client requirement.





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Project Delivery & Support

JMD are experienced in all stages of project delivery from conceptual design and drafting through to site installation and commissioning of a range of plant and equipment.

Our flexible approach in partnering with our clients allow us to best meet their project requirements.

Our project delivery capabilities and experience include:

- ≻ Project management
- Cost estimating and development of project budgets ≻
- Project scheduling & tracking ۶
- Development of supply and construction scope ≻ documents and tender packages
- Tender evaluation ≻
- ≻ Construction technical support, on and off site
- ≻ Fabrication, supply and installation
- Site construction ≻
- **Quality Assurance** ⊳
- \geq Commissioning & handover

JMD's wide-ranging site construction and commissioning experience includes material handling facilities, custom plant and equipment solutions and processing circuits.











For further information please contact:

OUR CLIENTS & PARTNERS INCLUDE:

- ➤ CBH
- Doral
- Global Advanced Metals

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- > Iluka
- ➢ KCGM
- Newcrest
- Newmont
- Regis Resources
- Round Oak

- Saracen
- Silverlake Resources
- Simcoa
- South32
- Southern Ports Authority
- Synergy
- Talison Lithium
- > UGL

JMD Engineering's history proves that we provide an interactive service. Collaboration that engages the client throughout all stages of project delivery.

JMD ENGINEERING VALUES:

HARDWORK

Giving our best effort with a team first approach

OWNERSHIP

Taking responsibility for tasks and outcomes, finding solutions, taking action and maintaining balance

INTEGRITY

Doing the right thing and operating with honesty, consistency and fairness to instil trust in all relationships

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