



ADM ENGINEERING

Capability Statement

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🏠 Open Monday to Friday
7am – 5pm

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ADM delivers innovative engineering solutions of the highest standard.

We provide mechanical engineering services for fabrication, sugar milling, mining, and heavy industry. As a qualified team, we customise our services to meet your engineering needs. Our experience ensures that the solutions we deliver meet both Australian standards and your business requirements. We pride ourselves in working with our clients towards outcomes that are cost-efficient, pragmatic, timely, and sustainable.

Our Mechanical Engineering

SERVICES



Inspection & certification

Inspection, analysis, re-rating, certification, and third-party recertification

We specialise in engineering for a variety of mechanical equipment and structures, ranging from tanks and vessels to overhead cranes, support structures, and piping.



Design & drafting

Design, verification, and drafting for fabrication, maintenance, or modification

We deliver practical, manufacturable, and clear designs for multidisciplinary projects. Our design and drafting services are founded on rigorous investigation and analysis.



Client support

Respectful client and on-site support

Our commitment to personalised and long-term client partnerships involves dedicated support from our engineering team for the duration of every project, including post-project support when necessary.

What We're

ABOUT

ADM is a mechanical engineering business based in Townsville. We are a tight-knit team of professionals who have access to invaluable knowledge, expertise, and direction from Principal Engineer Alf Masatto. To achieve high-quality results that meet industry standards and client expectations, we use a range of design software including Inventor, Nastran, Microstran, RAM Connection, and AutoPipe.

Since establishment in 2010, ADM has forged long-term working partnerships with plant engineers, maintenance managers, fabricators, importers, and designers across Queensland. The longevity of these partnerships confirms our commitment to quality service that is effective, trustworthy, and down-to-earth. We respect that our clients bring value to the project and find that employing a co-operative approach with our clients throughout the engineering process leads to better results.

Our Mechanical Engineering

SKILLSET



Engineering inspections

API 653 and API 510 certified inspectors with 3D scanning and NDT thickness testing capabilities



Finite element analysis (FEA)

Standard and advanced stress, structural, and flexibility analysis



Assessment & standards check

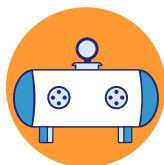
Remnant Life Assessments, Root Cause Analysis, life extensions, fitness for service, modification, load rating, and risk assessments



Project management

On-site inspection activities, design and installation projects, and scope development and writing

We are recognised as design, inspection, and certification specialists across various key engineering codes and standards. Our mechanical engineering services cover:



Pressure vessels

Ranging from vacuum to high pressure vessels



Plant & heavy industrial equipment

Including small and large fixed plant assets



Tanks & storage

Encompassing hoppers, silos, and tank vessels



Plant Machinery

Including attachments, concept development, and condition assessments



Lift equipment

Crane DWP assessments, lifting and spreader beam design, monorails, and davit arms



Structures

Vessel supports, columns, portal frames, and platforms for mechanical and fixed plant assets



Transfer equipment

Including piping, bucket elevator, slat conveyor, and belt conveyor systems



Other

We customise our engineering solutions for unique projects

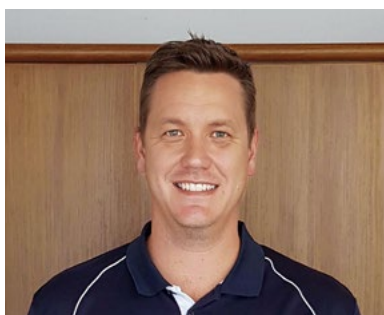
Our ADM Engineering

TEAM



Alf Masatto

Principal Mechanical Engineer
MIEAust, CPEng (Mechanical),
RPEQ, NER, APEC, IntPE(Aus),
API 653 Tank Inspector



Anthony Greinke

Mechanical Engineer
BEng (Mechanical), API 510
Pressure Vessel Inspector

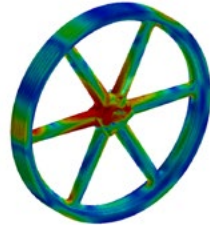


Daniel Larsen

Mechanical Engineer
BEng (Mechanical)
Qualified Plumber

A Sample of Our

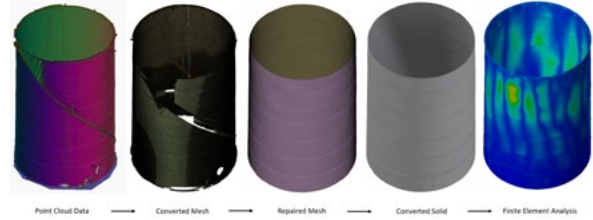
PROJECTS



Vacuum Pump Flywheel Study

Wilmar | Proserpine Mill | 2021

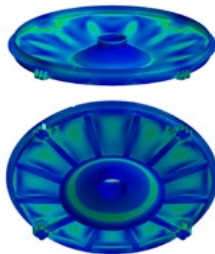
ADM investigated the unknown cause of a piston vacuum pump failure, involving a shattered flywheel. By applying RCA, supported by Explicit Dynamic and Nonlinear FEA, the ADM team determined that the probable cause was coolant entering the cylinder through a rupture in the casing, which resulted in hydrolock.



TT01 Ethanol Tank Vacuum Check

Wilmar | Sarina Bioethanol | 2022

ADM created an exact model of Wilmar's ethanol tank to determine if it could withstand a slight vacuum. The vessel was laser scanned, converted to a 3D mesh, then converted into a surface and analysed using Inventor Nastran. The analysis findings confirmed that the vessel would retain its structural integrity.



No. 2 Evaporator Replacement

Wilmar | Kalamia Mill | 2021-2022

ADM provided hands-on engineering consultancy for an evaporator replacement. This involved FEA backed certification to AS1210. Engineering support on heavy installation lifts and lift studies was also performed. Following the successful installation of the vessel, ADM then provided the same service for Evaporators No. 4 and No. 5.




Molasses Tank Inspection


Wilmar | Townsville Port | 2022

ADM has provided both a 20-year internal inspection along with a 5-year external online inspection of Wilmar's Molasses Tanks No. 3 and No. 4. The inspection findings and recommendations led to some necessary preventative maintenance and the continued safe operation of the vessels.

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