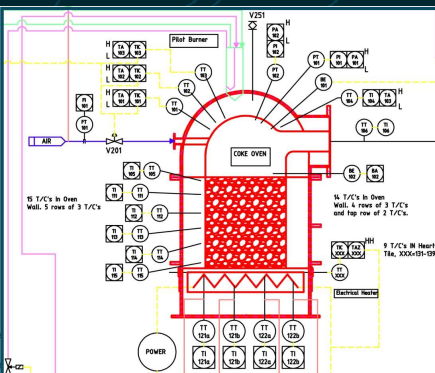


Engineering Services



Advitech Engineering Services provides a wide range of mechanical, civil and structural engineering, drafting and technical services to manufacturing and industrial companies. Specialising in the most challenging of projects, Advitech develops customised solutions that are both innovative and practical - from concept design through to commissioning.

Engineers at Advitech leverage a structured risk assessment approach to identify potential hazards to equipment, operators or the environment. We can design and project manage installation of physical barriers or platforms to reduce the risk of operator injury or production down-time, whilst ensuring OH&S legislative requirements are met. Our analysis and design services have integrated the latest software tools, including Autodesk Inventor (CAD - 3D solid modelling).

Our reputation and proven results from our engineering disciplines cover a broad spectrum of technical achievements from multiple industrial sectors.

Mechanical Engineering

Advitech's experience in heavy industry and manufacturing include the following:

- Design of a mechanical system to transfer billets from the unscrambler bed to a billet weigher then to the furnace charging conveyor in the steel industry.
- Design of crane systems and lifting frames for heavy industrial companies.
- Conceptual and detailed design of refractory lined vessels to receive molten iron in the event of a furnace breakout at an aluminium smelter.

Billet Transfer
Case Study

Civil and Structural Engineering

Our structural engineers also specialise in structural condition assessment and structural auditing - a process involving the physical assessment of structures for the purposes of asset management. Our industrial experience also includes the following:

- Structural design of pilot cell and compound for waste water treatment for the University of Newcastle.
- Principal civil and structural engineers for Bake Ovens at an aluminium smelter.
- Structural design assessment to assist with regulatory compliance at Berrima Coal.

Structural
Assessment
Case Study

Process and Chemical Engineering

Advitech's process and chemical engineers have been involved in the design of process plant and equipment, systems modelling, water and wastewater management.

We have experience across heavy industries as well as chemical processing and refining, waste water treatment, plus food and beverage processing.

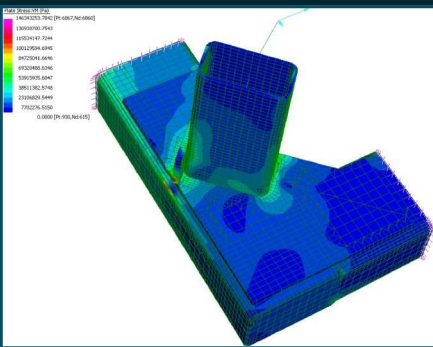
We ensure our process designs meet the practical requirements of operations and maintenance required in process plants.

Process
Engineering
Case Study

Michael Neville
Manager - Engineering



Michael is a mechanical engineer and Director of Advitech. He is experienced in engineering design, quality and risk management, and is responsible for our team of mechanical, civil and structural engineers and drafters.



OH&S Safety Risk Assessments

Advitech understands the importance of health and safety which is evidenced by our detailed Quality Management System. We provide specialised risk assessment services to the industrial and manufacturing industries, ensuring compliance with legislation and relevant standards. Safety audits can be conducted on pilot plants, factory equipment, workshops or entire sites.

We have developed a unique expertise in designing and installing physical barriers such as machinery guarding to improve operator safety and reduce LTI's. Our experience also includes the following:

- Facilitation of workshops to determine Safety Integrity Level (SIL) requirements for safety functions
- Verification of third party designs as part of registration for powered winding systems
- Facilitation of operational, safety and environmental risk assessments

Safety Integrity Level Case Study

Machine Safety Case Study

Computer Aided Design and Drafting

Advitech engineers and drafters are experienced with a variety of computer aided design and drafting systems to provide customised solutions for clients. Drawings can be tailored to meet a range of planning, design and presentation requirements.

CADD drawings or models can be rotated and automated to view all angles and aspects. This enables all project stakeholders the opportunity to provide input and confirm the design deliverables - before construction commences. Collaboration with stakeholders provides a cost effective benefit, as models can be easily modified in minimal time. Using CADD has greatly reduced the design cycle which allows projects to be completed on time and within budget.

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Why Choose Advitech?

Advitech provides professional engineering, environmental, management and information technology services. You will benefit from our knowledge and experience that we have gained from our broad customer base. As part of **The Advitech Group** of companies, we partner our products and services to support customers across multiple industry sectors and geographic locations.

Our expertise to support heavy industry and manufacturing includes the following:

- Real time noise, air and dust monitoring and modelling to ensure compliance with environmental regulations and standards.
- Noise and vibration investigations, including reducing noise from heavy machinery.
- Dangerous goods and hazardous materials risk assessments and development of safety management plans.
- Resource efficiency studies, energy auditing and energy management.

Additional information on Advitech's engineering services are provided in our online case studies. These can be accessed by clicking on the relevant arrow buttons above, which will direct you to Advitech's website.