





About Barclay Engineering

Founded in 1977 by Terry Barclay, **Barclay Engineering** started as a one-man operation in Willetton, Western Australia, specialising in hydraulics. A pivotal early project (sound-proofing bulldozer cabs for Alcoa), led to a shift towards acoustical engineering. This established **Barclay Engineering** as a leader in sound attenuation services.

Since then, we have expanded our expertise to include a variety of services such as power generation, dust control, ventilation, exhaust systems, waste heat recovery, fuel systems, and general steel fabrication. Our commitment to quality is demonstrated through our ISO 9001 certification, supported by a highly skilled team of professionals.

At **Barclay Engineering**, we are not just engineers; we are problem-solvers, innovators, and collaborators. With a steadfast commitment to excellence and a passion for pushing boundaries, we are your trusted partner for all your engineering needs. We believe the best solutions arise through collaboration. By working closely with our clients, we listen, understand, and tailor our approach to meet your unique requirements. With successful projects all around the globe, we bring a world of experience to every challenge.

As a family-owned business, we greatly value long-term relationships with our clients, employees, and partners. Our manufacturing facilities in Canning Vale, Western Australia, cover over 13,000m², which includes a 3,000m² workshop, 500m² of office space, and 9,500m² of hardstand area.



Quality
ISO 9001



Our Difference

At **Barclay Engineering**, we adopt a collaborative approach to tackle complex challenges in industries such as **mining, defence, power generation, oil and gas, and Heating, Ventilation and Air Conditioning (HVAC)**. Our dedicated team delivers customised solutions which seamlessly integrate into our clients' operations.

We specialise in designing high-quality engineering systems for real-world applications, including acoustic enclosures, dust control units, and precision fuel systems, all designed for real-world applications. We partner closely with our clients to ensure our designs align with their operational goals, industry standards, and environmental requirements.

Capabilities Overview

POWER STATIONS

ENCLOSURES & AUXILIARY SYSTEMS

STEEL, MECHANICAL & PIPING

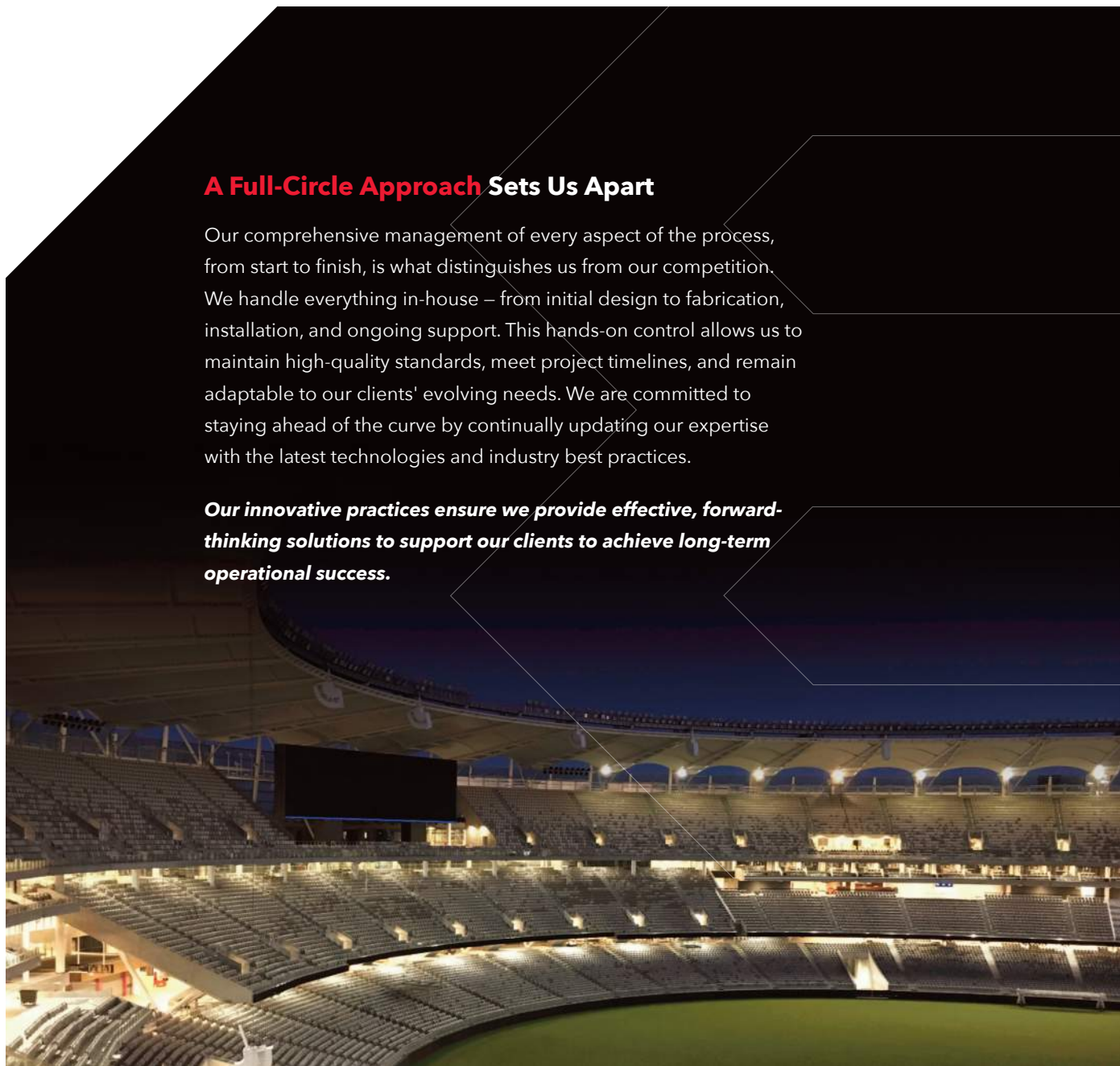
SWITCHROOMS

STEEL MOULDS & FORMWORK

A Full-Circle Approach Sets Us Apart

Our comprehensive management of every aspect of the process, from start to finish, is what distinguishes us from our competition. We handle everything in-house – from initial design to fabrication, installation, and ongoing support. This hands-on control allows us to maintain high-quality standards, meet project timelines, and remain adaptable to our clients' evolving needs. We are committed to staying ahead of the curve by continually updating our expertise with the latest technologies and industry best practices.

Our innovative practices ensure we provide effective, forward-thinking solutions to support our clients to achieve long-term operational success.





Power Stations

Barclay Engineering is at the forefront of delivering custom-engineered solutions tailored specifically for power generation facilities. With a wealth of experience, we are committed to enhancing the efficiency, reliability, and environmental compliance of power stations through our specialised services.

➤ Acoustic Attenuation

We provide bespoke acoustic solutions which meet stringent noise control regulations, ensuring optimal performance in power generation environments.

➤ Fuel Systems & Tanks

Our high-capacity fuel systems are designed for compliance and integrate secure storage with distribution, guaranteeing uninterrupted power generation.

➤ Heat Recovery & Ventilation

We maximise energy efficiency through waste heat recovery and effective ventilation, protecting critical equipment and reducing operational costs.

➤ Dust & Exhaust Management

We implement robust systems for managing dust and exhaust, ensuring compliance with environmental standards and maintaining superior air quality.

Lead the way toward a sustainable future by enhancing your power generation facility's performance with Barclay Engineering

Case Study 01

POWER STATIONS

PROJECT // Myanmar 52 MW Power Station

CLIENT // MWM GMBH

CHALLENGE

Design, manufacture and test a 52-megawatt (MW) power station in Myanmar and prepare for transport within 10-month timeframe. Ensuring uninterrupted power supply before the decommissioning of the existing power station.

SOLUTION

The building and balance of plant components were designed for efficient packaging into ISO containers, allowing for easy transport from Western Australia to Myanmar.

This approach addressed challenges associated with break bulk cargo shipping. The roof design featured 'swing-out' legs which allowed the structure to be assembled on the ground and then lifted into position.

OUTCOME

The project was completed within the set timeline, setting a record for the fastest construction period per MW for a power station at that time.





Case Study 02

POWER STATIONS

PROJECT // Senegal, West Africa Power Station

CLIENT // Energy Power Systems Australia / Ausdrill

CHALLENGE

Design, manufacture, transport, and install 10 acoustic enclosures for Caterpillar 3516B 1.8MW engines, in a short timeframe. All enclosures were required to meet the client's strict performance and quality specifications to support operations.

SOLUTION

Barclay Engineering applied its decades of expertise in designing and delivering acoustic enclosures to efficiently manage the design and fabrication schedules. The team utilised their deep knowledge to ensure the enclosures met all required specifications, and the installation team followed with precision to install them on-site as per the agreed timeline.

OUTCOME

The project was completed according to client's expectations for schedule, quality, and performance. This ensured a seamless integration of the enclosures with the Caterpillar engines.

Enclosures & Auxiliary Systems

Barclay Engineering specialises in delivering high-quality, purpose-built enclosures and auxiliary systems tailored to meet the diverse needs of industries such as mining, defence, power generation, oil and gas, and HVAC.

> Acoustic & Environmental Performance

Our enclosures are meticulously engineered for effective noise attenuation and robust protection against environmental conditions, ensuring compliance with strict operational standards.

> Tailored Design & Fabrication

Barclay Engineering excels in designing and manufacturing enclosures which cater to specific equipment and spatial requirements, to maximise efficiency and durability.

> Auxiliary Systems Integration

Our fully integrated solutions include ventilation, filtration, cooling, and lighting systems to optimise equipment performance.

Specialty areas:

- Advanced acoustic panel enclosures for turbines, compressors and generators.
- Resilient, weatherproof enclosures tailored for harsh climates and offshore applications.
- Robust auxiliary systems including fuel supply and storage, HVAC systems, and control panel housings.

Choose Barclay Engineering for reliable, customised solutions which enhance your equipment's performance and support longevity.





Case Study 03

ENCLOSURES & AUXILIARY SYSTEMS

PROJECT // Gas Turbine Exhaust Refurbishment,
South Australia **CLIENT //** NEXIF Energy

CHALLENGE

Design, manufacture, and install the structural framework, exhaust ducting, and a custom attenuator for a gas turbine power station.

SOLUTION

Our team worked collaboratively to develop an attenuation solution which met the client's requirements for its gas turbine enclosures.

OUTCOME

The final outcome not only met but exceeded our client's initial requirements, demonstrating our commitment to quality and customer satisfaction.



Case Study 04

ENCLOSURES & AUXILIARY SYSTEMS

PROJECT // RAAF Base Pearce, Western Australia
CLIENT // John Holland

CHALLENGE

Design and install acoustic treatments to reduce noise from jet engine testing.

SOLUTION

Our team develop an attenuation solution which satisfied the client's requirements for testing fighter jets within the facility and minimising disturbance to sensitive noise receptors in the surrounding area.

OUTCOME

Our team ensured high-quality execution and maintained open communication, resulting in an outcome that exceeded our client's requirements.





Steel, Mechanical & Piping

Barclay Engineering is a leader in the design, fabrication, and installation of steel structures, mechanical systems, and piping solutions tailored for critical industries such as mining, defence, power generation, oil and gas, HVAC, and heavy industrial applications.

> Structural Steel Fabrication

We manufacture and deliver strong, reliable, steel components such as frames, platforms and support structures, to meet specific, often unique, project requirements.

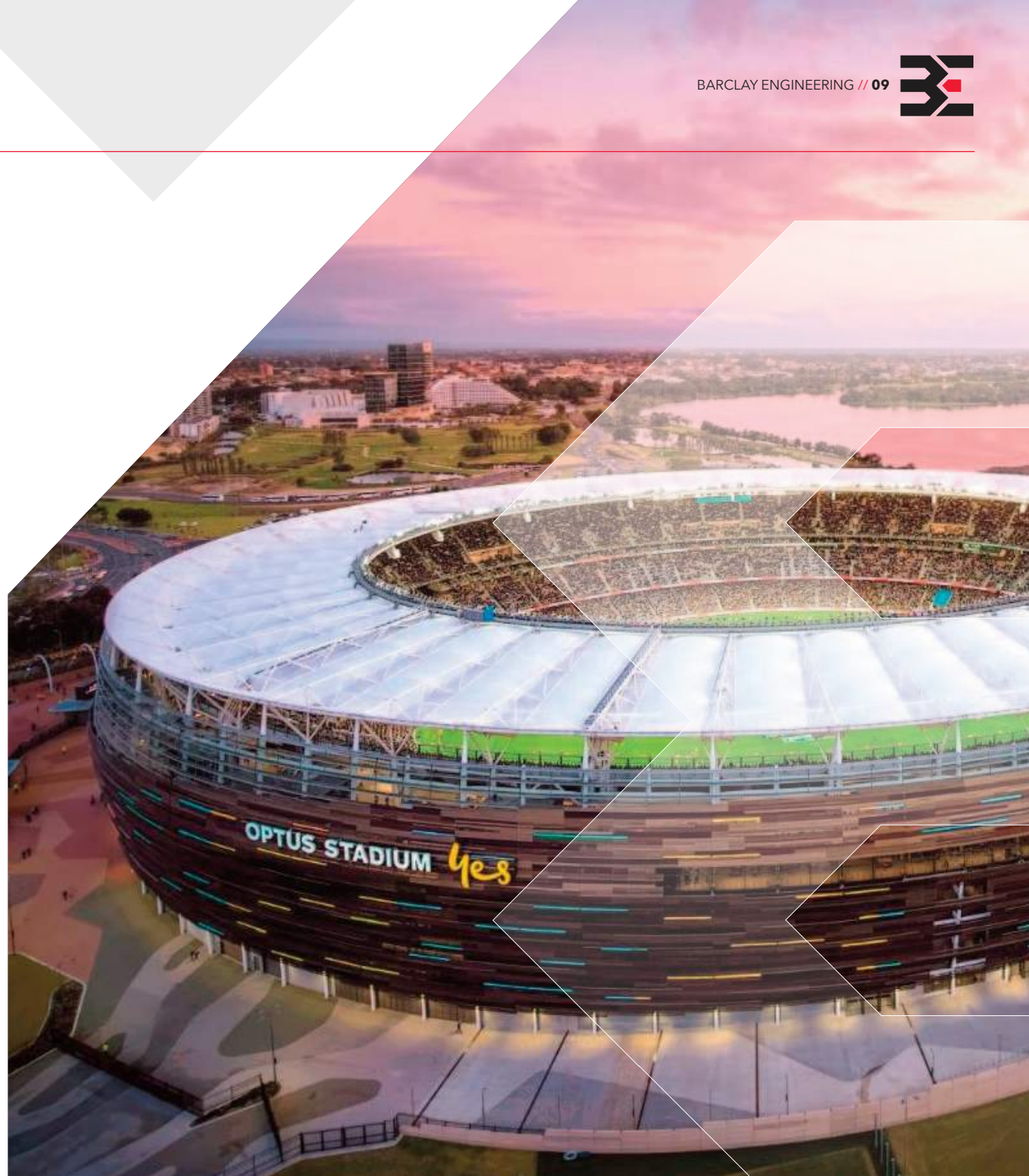
> Mechanical Systems

Our expert team provides innovative mechanical solutions to optimise our client's operational efficiency and productivity, through the installation and maintenance of complex machinery and system upgrades.

> Piping Systems

We provide robust, compliant and durable solutions for high-pressure systems and specialised piping used for fuel, water, and exhaust in demanding environments.

Barclay Engineering looks forward to partnering with you to meet your engineering needs and achieve outstanding results.





Case Study 05

STEEL, MECHANICAL & PIPING

PROJECT // Optus Stadium, Western Australia
CLIENT // Multiplex

CHALLENGE

Design, fabricate and install 22kms of handrails and balustrades for Optus Stadium. This required meticulous planning and execution to meet a challenging timeframe.

SOLUTION

We optimised the workshop and fabrication processes to streamline production and maintain high-quality standards.

OUTCOME

We delivered a world-class product on schedule, contributing to the stadium's successful development.



Case Study 06

STEEL, MECHANICAL & PIPING

PROJECT // One Subiaco, Western Australia
CLIENT // Multiplex

CHALLENGE

Manufacture and deliver 40-tonnes of steelwork within five weeks to enable Multiplex to maintain its project delivery schedule.

SOLUTION

We utilised supply chain contacts and optimised workshop fabrication efficiencies to ensure timely delivery and meet strict project deadlines.

OUTCOME

Our efforts and ability to deliver in tight timeframes ensured the project schedule remained on track.



Case Study 07

SWITCHROOMS

PROJECT // CBH Switchroom, Western Australia
CLIENT // Intellect Systems

CHALLENGE

Design and manufacture a 7m x 4m switchroom for the Esperance Port facility, taking into account harsh environmental conditions. This included the responsibility for manufacturing and installing the electrical systems, HVAC, and fire safety fit-out.

SOLUTION

Barclay Engineering worked closely with the client to understand requirements and efficiently execute manufacturing. This enabled early switchroom fit-out completion.

OUTCOME

Project expectations were exceeded which reduced schedule risks for the overall project.



Case Study 08

SWITCHROOMS

PROJECT // Roy Hill Switchroom, Western Australia
CLIENT // Teck Global

CHALLENGE

Design and manufacture a 48m long switchroom which can be entirely constructed in the workshop and then separated into two parts for transport to the site.

SOLUTION

Barclay Engineering utilised standardised prefabrication methods to enhance efficiency in the manufacture and assembly of the switchroom.

OUTCOME

We expertly met the client's schedule and exceeded their quality expectations, demonstrating our commitment to excellence and client satisfaction.





Case Study 09

STEEL MOULDS & FORMWORK

PROJECT // Byford Rail Extensions Train Station,
Western Australia **CLIENT //** Permacast

CHALLENGE

Permacast faced significant delays with their imported mechanical moulds, which required extensive bolting and dismantling, taking up to three days to release. Achieving a seamless 48m cast added to the complexity.

SOLUTION

Our team created motorised, automated moulds tailored to specific needs, comprising four 9m and two 6m segments with a synchronised release for simultaneous mobilisation.

OUTCOME

The new system cut release time from days to hours, reducing labour costs and increasing efficiency. Its modular design ensures future reusability, enhancing sustainability.



Case Study 10

STEEL MOULDS & FORMWORK

PROJECT // Fitzroy River Bridge Reconstruction,
Western Australia **CLIENT //** Permacast

CHALLENGE

Traditionally, building concrete columns with steel and wood moulds required manual removal after casting, posing safety risks and consuming significant time as workers had to enter the columns.

SOLUTION

Our team transformed a labour-intensive process with a steel column mould featuring an internal plug system, enabling easy release and removal with a crane.

OUTCOME

Outstanding results: The streamlined process cut mould removal time and removed the need for worker entry, significantly improving site safety.

Project of the Year

National 2024 Engineers
Australia Excellence Awards





Barclay Products

Barclay Engineering offers a comprehensive range of products tailored to meet the needs of various industries including mining, defence, power generation, marine, construction, oil and gas and HVAC.

Our product portfolio includes:

› HVAC Systems

Advanced air handling units and enclosures designed for optimal heating, ventilation and air conditioning performance.

› Switchrooms & Electrical Works

Custom-engineered Switchrooms and electrical installations to ensure reliable power distribution and control.

› Moisture Eliminators

Solutions to effectively remove moisture, protect equipment and enhance operational efficiency.

› Marine Systems

Specialised exhaust systems and engine room ventilation designs for a variety of marine vessels, ensuring safety and compliance.

› Fuel Systems

Comprehensive fuel storage and distribution systems tailored to specific operational requirements.

› Dampers & Louvres

High-quality components for controlling airflow and maintaining environmental conditions within industrial settings.

› Silencers & Attenuators

Noise control solutions to meet stringent acoustic requirements across different industries.

› Mufflers & Exhaust Systems

Fabricated to Germanischer Lloyd AG certification standards, offering long-term solutions to exhaust noise problems.

› Inertial Filters

Designed to remove particulates from airflow, protecting equipment and ensuring clean operations, significantly reducing maintenance compared to traditional fabric filters.

› Gas Turbine Packages

Engineered solutions for gas turbine projects, addressing specific acoustic and operational needs.

› Structural Steel

Fabrication of mild steel, stainless steel, and aluminium structures to support a range of industrial applications.

Barclay Engineering is committed to quality and performance, providing clients with reliable and efficient solutions tailored to meet their specific needs.





Our Facilities & Global Reach

Barclay Engineering's advanced facilities are specifically designed to fulfill a range of engineering and manufacturing needs, ensuring efficiency and precision in every project. Key facilities include:

The Dome Facility

The Dome Facility is designed for project collaboration and commissioning and reducing logistics and transportation costs. It includes a client crib room for on-site coordination and a spacious area for equipment handling and storage.

Workshop & Office Space

- A 3,000m² workshop featuring advanced fabrication and assembly capabilities.
- A 500m² office space to accommodate design, project management, and administrative teams.

Equipment & Resources

- New cranes, including a remotely operated 70-tonne crawler (Goliath).
- Elevated Work Platforms (EWPs) and knuckle boom lifts for assembly and installation tasks.
- A Load Bank Facility for testing and validating systems under operational conditions.
- Steel backing capabilities for beams to enhance structural production.

Technology & Collaboration Tools

- Interactive audiovisual screens in boardrooms to facilitate efficient communication.
- Drafting and modelling programs and Enterprise Resource Planning systems for improved project tracking and knowledge management.

Barclay Engineering operates from a 13,000m² facility in Canning Vale, Western Australia, employing up to 80 staff in design, engineering, drafting, manufacturing, testing, and commissioning services, delivering a range of solutions and products.

Lifting Capacity	3 x 10T Overhead Crane
	2 x 5T Overhead Crane
	1 x 5T Forklift
	1 x 3T Forklift
	1 x 12T Mobile Crane
	1 x 18T Mobile Crane
Fabrication Facilities	1 x 28T Mobile Crane
	Machining, fabrication, sheet metal working bays
Workshop	3000m ²

Barcaly Global Footprint

Barclay Engineering supports clients throughout Australia and internationally, extending its expertise to the Asia-Pacific, the Middle East, Europe, and Africa. By maintaining state-of-the-art facilities and prioritising innovation, **Barclay Engineering** ensures its solutions meet global standards while addressing local requirements.





Our Clients & Partners

Barclay Engineering works with industry leaders across sectors such as mining, defence, oil and gas, power generation, and construction.



Barclay Engineering's strong partnerships with trusted suppliers and contractors ensure we deliver quality outcomes across all projects.

We pride ourselves on building long-term relationships which benefit our clients.

I am becoming very accustomed to the quality outcome from the **Barclay Engineering** team. The highlight reel for your team at Wagerup and Bunbury through 2023 is impressive. The noise reductions at train unloading were immediately evident. I want to thank you all for the efforts this year."

Client: Alcoa
Name: Benjamin Stam
Role: ESP Site Lead

"The **Barclay Engineering** team are very communicative and complete actions in a timely manner. They are open and willing to resolve issues promptly and to a high standard. Very happy to work with you again in the future!"

Client: Worley
Name: Georgina Bull
Role: Project Engineer

DESIGN // ENGINEER // MANUFACTURE // INSTALL // MAINTAIN

Barclay Engineering is here to provide innovative, tailored solutions for your engineering needs.



Let's build something exceptional together.

Contact us today to discover how **Barclay Engineering** can help partner on your project.

+61 08 9256 0900

info@barclayeng.com.au

barclayeng.com.au

12-16 Catalano Road, Canning Vale 6155, Western Australia

[linkedin.com/company/barclayeng/](https://www.linkedin.com/company/barclayeng/)



BARCLAY
ENGINEERING