The Environmental Group Limited
Engineering a Sustainable Future

EGL Baltec

Engineered solutions for the power industry

EGL BALTEC

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Part of The Environmental Group Limited
P: +61 3 9541 8699 E: baltec@egl.com.au
www.environmental.com.au

Proven Engineering for Power Generation

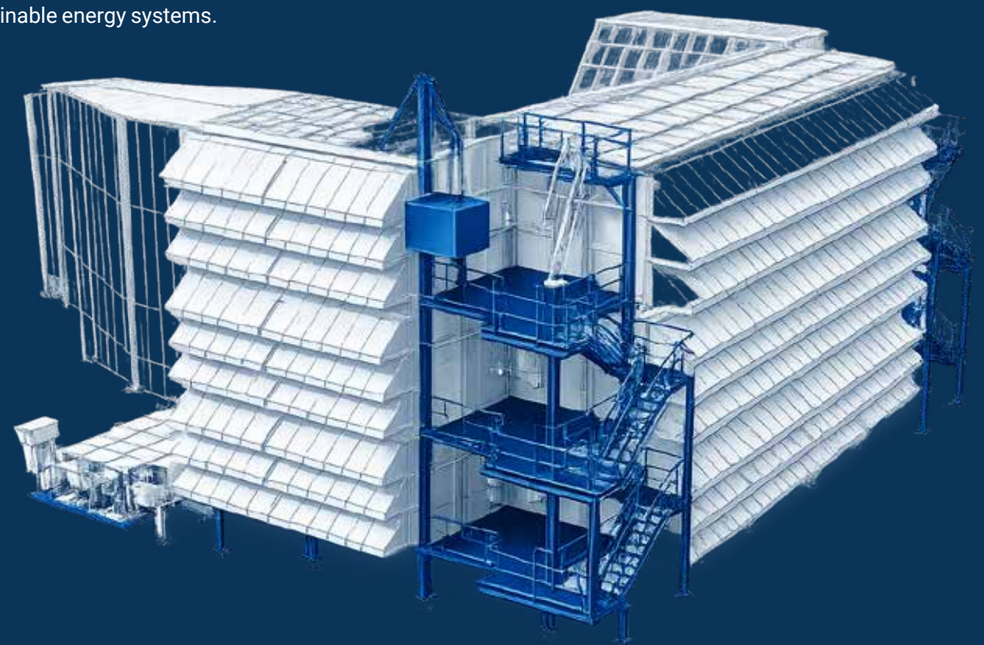
EGL Baltec, part of The Environmental Group, is an Australian-founded engineering and manufacturing specialist delivering gas turbine inlet and exhaust systems for power generation worldwide.

For nearly 40 years, we've helped operators reduce risk, enhance performance, increase flexibility and protect critical assets—supporting the transition to more efficient and sustainable energy systems.

What We Deliver

- Gas turbine inlet systems & filtration systems
- Exhaust stacks for simple and combined-cycle plants
- Diverter and guillotine dampers
- Acoustic solutions
- Expansion joints

Engineered for reliability, efficiency, and long-term operations.



Trusted by Industry

Our long-term partnerships span across:

- Gas turbine OEMs
- EPC contractors
- HRSG manufacturers
- Power asset owners

Working collaboratively from concept through to commissioning, providing delivery certainty, engineering depth and long-term performance.

Bespoke Designs

Every EGL Baltec system is engineered for its environment. Whether for a new facility or a retrofit of an existing plant, we design and deliver fully bespoke solutions tailored to meet the most demanding operational, spatial, and performance requirements.

Experience

Siemens
- SGT-600
- SGT-750
- SGT-800
- SGT5-2000E
- SGT5-4000F
- SGT6-8000H

MHI
- FT8 SWIFTPAC
- H-100
- M701F
- W501F

GE
- LM2500 / TM2500
- LM6000
- GT13E1 / GT13E2
- Frame 5
- Frame 6
- 6FA
- 7E
- 7FA
- 9E

Ansaldo Energia
- AE94.2
- AE94.3

Solar
- Mars 100
- Taurus 70

Bypass Exhaust Systems

At the core of EGL Baltec capability is the bypass exhaust system—linking the gas turbine to the HRSG while providing the flexibility to operate in simple-cycle mode when required.

Complete System Capability

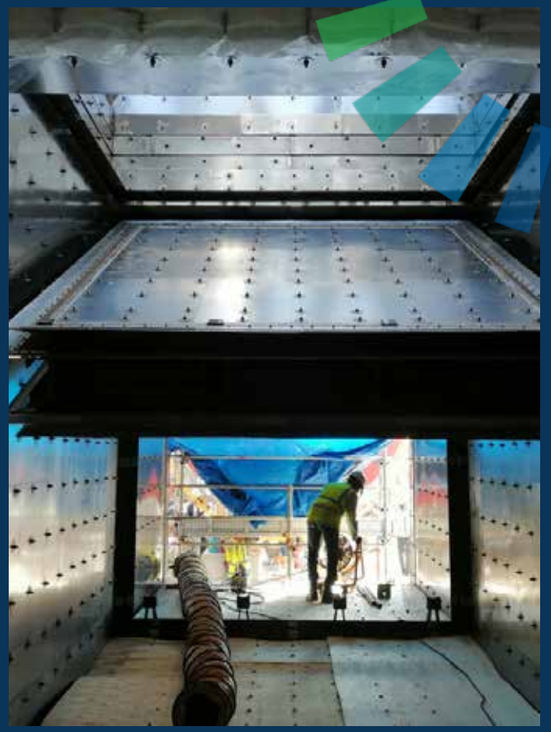
EGL Baltec specialises in the full scope of bypass exhaust system equipment, including:

- ✓ Exhaust stacks
- ✓ Diverter dampers
- ✓ Guillotine dampers
- ✓ Silencers
- ✓ Exhaust ducting
- ✓ Support structures
- ✓ Expansion Joints

All components are engineered to integrate seamlessly and perform reliably as a complete system.

Bypass exhaust system, Colombia

Bypass exhaust system, QLD Australia



Diverter Dampers

EGL Baltec's standard diverter damper designs range from 2.4 m square gas paths (suitable for Solar Mars 100–class turbines) up to 7.5m square (suitable for 7HA.03, 9HA.01, M501JAC, SG5-8000H and similar turbines).

Special sizes outside the standard range may be offered upon request.

Drive systems can be supplied as hydraulic or electric, selected to suit project requirements and opening, closing and emergency operating time requirements.

Guillotine Dampers

Guillotine dampers are available with:

- → Traditional design with manual top hatch and overhead hoist
- → Bonneted design with rack & pinion drive system
- → Guillotine seal air systems

Blade Design & Materials

Diverter damper blades are configured as pivot or toggle drive, depending on system size and duty. Materials are carefully selected to suit the specific exhaust gas characteristics of each gas turbine application.

Exhaust stack for Compressor Station UK

Exhaust Stack with Acoustic Wall Singapore

Simple Cycle Exhaust Stacks

Designed for the rigours of frequent GT starts

For plants operating exclusively in simple cycle, EGL Baltec delivers robust exhaust stack solutions engineered for long-term performance, structural integrity, fluctuating energy requirements and site-specific conditions.

Flexible Stack Configurations

EGL Baltec can supply self-standing stacks or steel structure supported stacks, selected to suit plant layout, foundation constraints, and operational requirements. Complete with ladders, platforms, staircases, expansion joints, aircraft warning lights, lightning rods and cable trays, these stacks can also be fitted with acoustic noise walls to provide additional noise reduction where required.

Future-Ready by Design

Steel structure supported stacks can be designed for straightforward conversion to combined cycle in the future—allowing the elbow duct to be replaced with a diverter damper when an HRSG is added. This approach protects initial investment while preserving long-term flexibility.

Exhaust Silencers

Acoustic Performance for Demanding Applications

EGL Baltec designs and manufactures exhaust silencers to meet specified near and far-field noise limits for some of the most demanding gas turbine power plant applications. Each silencer is engineered to deliver the required acoustic attenuation while maintaining structural integrity under extreme exhaust temperatures and flow conditions.

Engineered Using Advanced Modelling

Silencers are developed using thermal and acoustic modelling software, ensuring noise performance is achieved without compromising durability. Internal components are specifically designed to withstand rapid temperature fluctuations and high-velocity exhaust flows typical of modern gas turbine operations.

Horizontal Silencer Ireland

Splitter (Baffle) Silencer Design

Exhaust silencers typically comprise parallel splitters (also referred to as baffles) installed within the silencer duct. These are most commonly located in the lower section of the exhaust stack, with exhaust gas flowing vertically upwards.

Where required by site layout or system configuration, silencers can also be supplied for horizontal flow applications, such as upstream of a diverter damper.

Silencer SA Australia

Floating Liner Technology for Peaking Plants

For peaking power stations and other high-cycling applications, EGL Baltec offers an industry-leading floating liner splitter design. This design accommodates thermal movement and significantly extends service life in systems subjected to frequent start-stop and thermal cycling.

Exhaust Stack for Peaking Plant Australia

Lined Stack Alternatives

Where lower levels of noise attenuation are sufficient, an exhaust stack with internal acoustic lining can be provided as a simplified and cost-effective solution.

Inlet Systems

Protecting the Heart of the Turbine

Airborne contaminants can cause serious erosion and fouling of compressor blades and internal gas turbine components. The inlet system is therefore one of the most critical elements of a gas turbine power plant responsible for delivering clean, filtered intake air to protect performance, efficiency, and asset life.

Complete Inlet Filtration Solutions

EGL Baltec designs and manufactures both static and pulse-cleaning filter houses, engineered to suit site conditions and environmental challenges. Systems can be supplied with fully integrated control and instrumentation packages to ensure reliable operation and performance monitoring.

Filter House WA Australia

Integrated Performance Enhancements

EGL Baltec inlet systems can seamlessly incorporate:

- Evaporative cooling systems
- Chilling systems
- Inlet silencers
- Acoustic duct insulation
- Acoustic enclosures

These integrated solutions improve turbine output, manage intake air characteristics and control inlet noise—all within a coordinated and engineered design.

Filter House with Evaporative Cooling NSW Australia

Engineered for Performance, Efficiency & Sustainability

As part of The Environmental Group, EGL Baltec supports the delivery of more efficient and sustainable energy infrastructure.

Our inlet systems are engineered to:

- Maximise turbine efficiencies and outputs
- Reduce energy losses associated with poor air quality
- Extend asset life and reduce maintenance frequency
- Support compliance with environmental and noise regulations

Through a combination of advanced design, proven engineering, and integrated system thinking, EGL Baltec inlet systems help operators achieve reliable performance while contributing to a more sustainable energy future.

From concept design through to manufacture, installation, and ongoing support, EGL Baltec delivers complete inlet system solutions for new projects and retrofit applications.

Whether upgrading existing infrastructures or delivering new-build systems, EGL Baltec works closely with clients to ensure every solution is aligned with operational goals, site conditions, and long-term performance requirements.

Filter House with inlet cooling and heating Thailand

Inlet Cooling & Heating

Optimising Turbine Performance in Every Climate

Gas turbine performance is directly affected by ambient air conditions. EGL Baltec designs customised inlet air heating and cooling systems, including evaporative cooling, chilled air and heating solutions, to optimise turbine performance across a wide range of climates. Integrated with our inlet filter houses, these systems help improve output, efficiency and reliability year-round.

- Evaporative cooling systems
- Chilled inlet air cooling systems
- Filter house heating systems for cold climates
- Custom-engineered designs for site conditions
- Improved turbine output and efficiency
- Fully integrated with Baltec inlet filtration systems

Filter house with inlet cooling and heating Thailand

Expansion Joints

Flexible Solutions for Thermal Movement

Gas turbine exhaust systems are exposed to significant temperature fluctuations and structural movement during operation. EGL Baltec expansion joints are engineered to accommodate thermal expansion, vibration, and system movement, helping to protect ductwork, silencers, stacks, and connected equipment from excessive stress.

Designed for long-term reliability in demanding operating environments, our expansion joints provide a critical point of flexibility within the exhaust system while maintaining gas-tight performance and structural integrity.

Available in a wide range of configurations, EGL Baltec expansion joints can be customised to suit virtually any duct size, temperature range, pressure requirement, and connection type, including hot flange, cold flange, bolted, and welded arrangements.

Hot to Cold Expansion Joint Australia

Key Benefits

- Accommodates thermal expansion and contraction
- Reduces stress on ductwork and connected equipment
- Absorbs vibration and system movement
- Suitable for any duct size and connection configuration
- Engineered for high-temperature gas turbine applications

Hot to cold Expansion Joint Malaysia

Engineering Capabilities

Core Engineering Disciplines

EGL Baltec's in-house capabilities include:

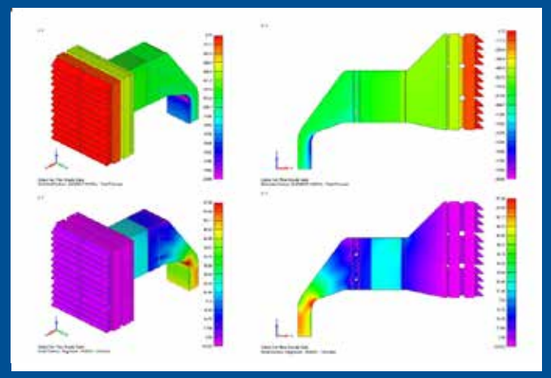
- Structural engineering
- Mechanical engineering
- 3D modelling and 2D drafting
- Computational Fluid Dynamics (CFD) analysis
- Finite Element Analysis (FEA)
- Thermal stress analysis
- Acoustic modelling and attenuation design
- Electrical and PLC system design

This integrated approach ensures every system is engineered for durability, compliance, and operational reliability. All engineering is managed at EGL Baltec's head office in Australia.

Advanced Modelling and Analysis

EGL Baltec utilises advanced simulation and modelling tools to validate performance before fabrication:

- 3D sectional modelling of gas turbine exhaust stacks
- 3D modelling of complete inlet systems
- Acoustic analysis and silencer design validation
- Structural analysis for wind, seismic, and operational loads
- CFD modelling to optimise pressure drop and velocity profiles within inlet systems
- Thermal stress analysis to manage expansion and high-temperature cycling



Proven Engineering

Engineered for Real-World Conditions

EGL Baltec systems are designed not just to meet specifications but to perform reliably in the environments they operate in. From high-temperature exhaust systems to complex inlet configurations, every solution is validated through advanced modelling and backed by ISO-accredited engineering and fabrication standards.

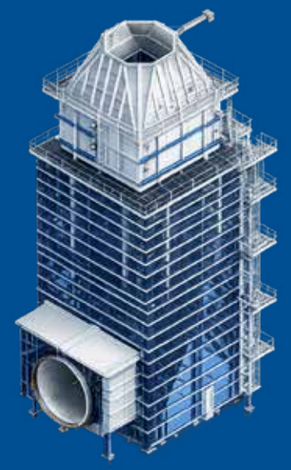
Using tools such as CFD, FEA, and acoustic modelling, EGL Baltec optimise airflow, manages thermal expansion, and ensures structural integrity under wind, seismic, and operational loads—before a system is ever built.

End-to-End Project Capability

From concept to commissioning, EGL Baltec provides complete project delivery for gas turbine inlet and exhaust systems.

Our multidisciplinary teams work together across all areas of engineering, manufacturing, quality, installation and commissioning to ensure every project is delivered safely, efficiently and to specification.

By integrating every stage of the project lifecycle, we improve constructability, streamline communication, reduce delivery risk and provide clients with a single engineering partner from design through to long-term operational support.



Built on Experience. Delivered with Confidence.

With decades of experience in gas turbine systems, EGL Baltec has developed a deep understanding of the challenges faced by power generators—balancing performance, reliability, and environmental demands.

Our engineering approach is grounded in real-world application, ensuring that every system is not only technically sound, but proven to perform under demanding operating conditions.

EGL Baltec's capability supports the delivery of more efficient and sustainable energy infrastructure—aligning engineering performance with long-term environmental outcomes.

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Contact Us

baltec@egl.com.au

www.environmental.com.au

+61 3 9541 8699

Suite 2.01 | Level 2
315 Ferntree Gully Road
Mount Waverley VIC 3149

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Quality. Safety. Responsibility.

Certified to:

- ISO 9001 – Quality Management
- ISO 14001 – Environmental Management
- ISO 45001 – Occupational Health & Safety