

AUSTRALIAN STEEL INSTITUTE

ASI STEEL COMPLIANCE SOLUTIONS

BUILDING RESILIENCE



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AUSTRALIAN STEEL: ADDED VALUE WITH QUALITY, PRODUCTIVITY & SAFETY

The supply of an unacceptable degree of non-compliant, unsuitable, and often faulty building products is increasingly being seen in building, infrastructure and resources projects in Australia, ranging from small local developments to major projects involving international teams.

Buying Australian manufactured and processed steel brings many advantages to customers beyond the broader economic benefits. These include reduced delivery lead times and freight costs, as well as greater reliability of supply and lower inventory requirements.

Australia's steel value chain offers significant benefits, including the customisation, fabrication and finishing of products to meet unique local aesthetic and environmental requirements. National manufacturing and distribution networks streamline supply and ensure availability, traceability, after-sales and technical support, while fabrication and roll-forming facilities deliver high levels of workmanship and compliant structures.

Customers can be sure of the consistency and quality of Australian steel and steelwork knowing that it complies with Australian Standards and regulations, and that it is supported by an effective and compliant value chain.

ASI STEEL COMPLIANCE SOLUTIONS

The ASI has produced a range of solutions and tools to help our stakeholders ensure cost-effective, compliant outcomes, and structures that are resilient and achieve the intended design life. These steel compliance solutions include:

- **National Structural Steelwork Compliance Scheme (NSSCS)** is an independent, third party quality compliance and certification system for the supply, fabrication and erection of structural steelwork in Australia. The NSSCS is underpinned by:
 - The Australian Standard AS/NZS 5131 *Structural Steelwork - Fabrication and Erection* provides the technical foundation for compliant solutions
 - The National Structural Steelwork Specification (NSSS): provides engineers and specifiers with a straightforward way to implement AS/NZS 5131 requirements
 - Steelwork Compliance Australia (SCA): is the approved independent auditing and certification body to assess fabrication and processing facilities to AS/NZS 5131 under the NSSCS.
- **Steel Sustainability Australia (SSA)** offers a new certification program that provides a clear pathway for steel businesses to operate more responsibly and transparently while being part of an environmentally and socially sustainable future. The SSA program was developed by the Australian Steel Institute (ASI). Superseding ASI's Environmental Sustainability Charter (ESC), the SSA program engages the entire steel value chain by certifying downstream steel businesses such as fabricators, roll formers, and reinforcing processors, and verifying upstream steel producers against best practice environmental, social and governance (ESG) indicators aligned to the principles supporting the Green Building Council of Australia's (GBCA) Responsible Product Framework.
- **ShedSafe**, a third-party accreditation program, developed at the request of industry, to promote and publicise compliance with the Building Code of Australia for cold-formed steel sheds.

Each of ASI's steel compliance solutions is outlined in detail on the following pages.



STRUCTURAL STEELWORK COMPLIANCE



OVERVIEW

ASI has been on a planned and managed journey to improve compliance outcomes for structural steelwork in Australia which benefits the entire Australian community. Compliance must be addressed and managed across the complete steel supply chain. As such, ASI has put in place a multi-faceted initiative, the major components of which include:

- The Australian Standard AS/NZS 5131 *Structural steelwork - Fabrication and erection* provides a unified, transparent, and definitive view of what 'good practice' looks like and forms the technical foundation for the NSSCS.
- The National Structural Steelwork Specification (NSSS) provides engineers and specifiers with a straightforward way to implement AS/NZS 5131 requirements in the project process.
- The National Structural Steelwork Compliance Scheme (NSSCS) provides engineers, builders and the client with a packaged solution for cost-effective compliance outcomes.
- Steelwork Compliance Australia (SCA) is an independent company established by ASI to administer third-party certification of fabricators under the NSSCS. SCA has been audited and awarded JAS-ANZ accreditation for auditing to the full scope of AS/NZS 5131, and is currently the only Certifying Body with accreditation to the entire standard.

The rates of adoption of independent certification by SCA under the NSSCS have grown to over 100 companies certified across Australia and many additional in the process of gaining certification.

AUSTRALIAN STANDARD AS/NZS 5131 STRUCTURAL STEELWORK - FABRICATION AND ERECTION

AS/NZS 5131 defines good practice for the fabrication and erection of structural steelwork for projects in Australia, using a risk-based fit-for-purpose approach. It provides the technical basis for the NSSCS and establishes a quality benchmark that is responsive to the needs of both projects and clients. AS/NZS 5131 addresses:

- Requirements for documentation and specification
- Materials, including steel, welding consumables, fasteners and grout
- Preparation and assembly, including cutting, shaping and holing
- Welding, including welding processes and qualification of welding procedures and personnel
- Surface treatment and corrosion protection
- Mechanical fastening (bolting, tensioning of bolts, special fasteners, post-fixed anchors)
- Architecturally exposed structural steelwork
- Erection
- Geometrical tolerances
- Inspection, testing and correction
- Site modifications and repair of existing structures

This quality benchmark is established via the requirement for engineers to specify a Construction Category (CC) in project specifications. The CC establishes the correct level of quality and assurance controls to ensure the structure meets the engineer's design assumptions and level of risk mitigation under obligations implicit in the Workplace Health and Safety Act (2011). The fabricator must have the processes in place to satisfy the specified CC. Construction categories vary from CC1 for least risk to CC4 for most risk.

Key documents developed by ASI include the National Structural Steelwork Specification (NSSS), along with Standard Drawing Notes (SDN) for engineers and specifiers, which were released after peer reviews by several prominent engineering practices. The documents facilitate uniform and consistent reference to AS/NZS 5131 and reduce the misalignment of expectations and contractual issues. The NSSS and SDN are available for free download to help promote best practice project implementation.

The latest revision of the National Construction Code (NCC) references the latest revision of our structural steelwork design Standard, AS 4100, which in turn references AS/NZS 5131. Therefore, AS/NZS 5131 is now effectively sewn into building Regulation in Australia. AS/NZS 5131 must be complied with for fabrication and erection of structural steelwork intended for structures covered by the NCC in Australia, unless an alternative performance solution under the NCC is proposed.

NATIONAL STRUCTURAL STEELWORK COMPLIANCE SCHEME

Established in 2014, the National Structural Steelwork Compliance Scheme (NSSCS) is an independent, third party quality compliance and certification system for the supply, fabrication and erection of structural steelwork in Australia.

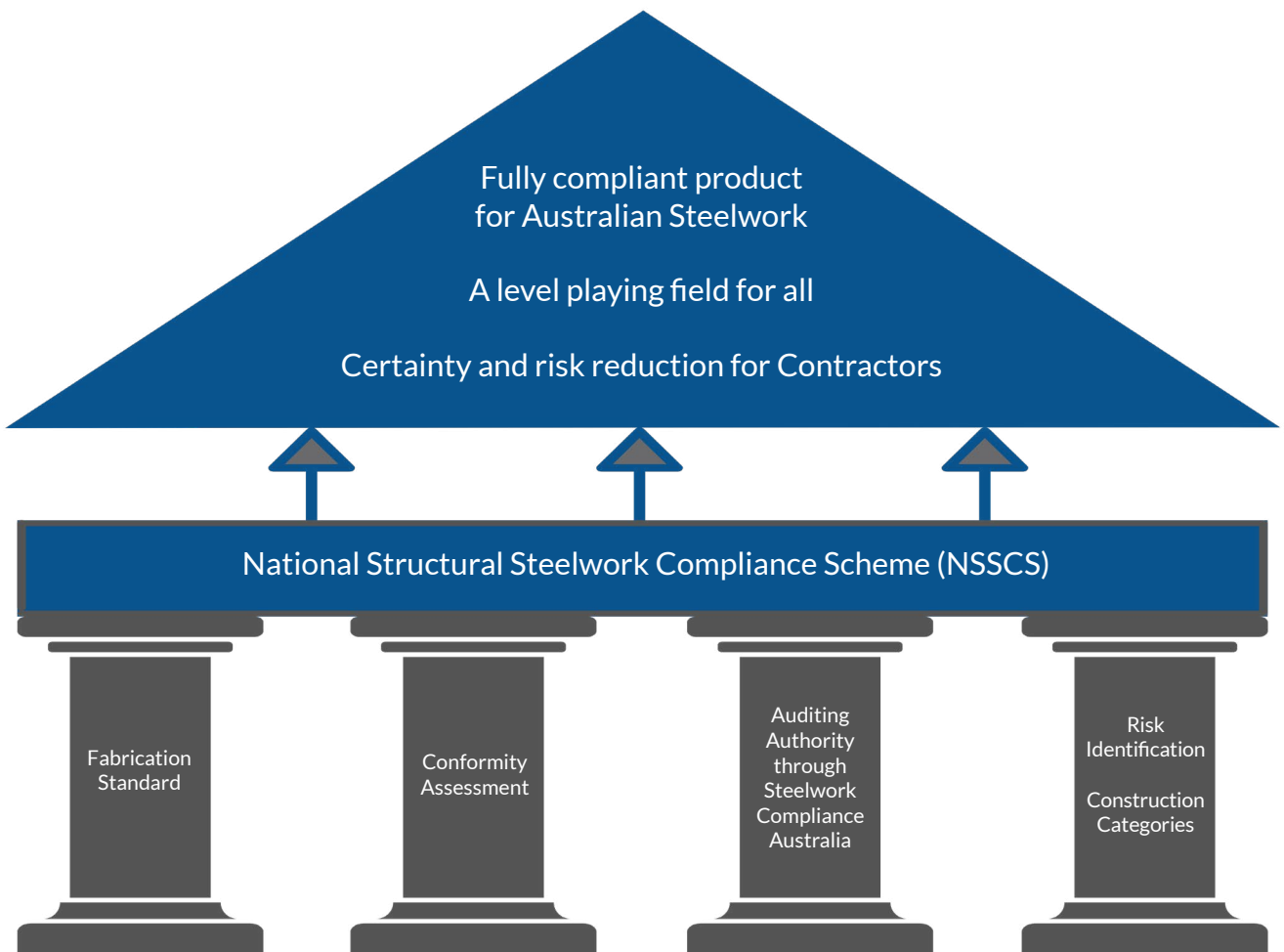
The NSSCS ensures that steel fabricators have the correct systems in place and employ skilled workers to achieve the required quality of work and meet the requirements of Australian standards.

With the technical basis for the NSSCS founded on AS/NZS 5131, the Scheme is applicable to structures designed to AS 4100 *Structural steelwork*, AS/NZS 5100.6 *Bridge Design – Steel* and composite construction and supporting Australian Standards, including those for welding, bolting and corrosion protection.

Under the NSSCS, fabricators (both local and overseas) are audited and certified by Steelwork Compliance Australia (SCA) to one of the Construction Categories (CC) defined in AS/NZS 5131. Once certified, fabricators are pre-qualified to carry out specific steel fabrication processes which depends on their certification level. Certification to a qualification level also ensures the Scheme is fit-for-purpose and does not result in over specification.

The required CC (as assessed by the engineer) is included in project specifications and establishes the correct level of quality and assurance controls to ensure the structure meets the engineer's design assumptions and level of risk mitigation under obligations implicit in the *Workplace Health and Safety Act (2011)*.

The steel fabricator contracted for a specific project must have the processes in place to satisfy the CC specified. Fabricators certified under the NSSCS adhere to all elements of AS/NZ 5131 throughout the fabrication process including employment of trained staff, demonstration of material traceability, and controls for welding, coatings, AESS and erection.



BENEFITS OF CERTIFICATION

The SCA provides the construction industry with certainty that certified fabrication companies have the capability to produce to the compliance requirements of the appropriate Australian Standards for the relevant construction categories as defined in AS/NZS 5131 and specified by the design engineer for a project or component of a project.

This benefits the Australian construction industry by:

- Providing greater certainty of construction outcome
- Reducing the incidence of bogus supply
- Boosting productivity by minimising the need for rework and repair over the lifecycle of a project
- Providing a national pool of pre-qualified fabricators to AS/NZS 5131
- Reducing risk consistent with the Workplace Health and Safety Act and Regulations
- JAS-ANZ accreditation provides certainty that the SCA's auditing and certification practices are robust and consistent with industry best practice

CLIENTS AND GOVERNMENT

The process to achieve the quality benchmark for clients and Government is:

1. Configure your procurement specifications to correctly reference AS/NZS 5131 (the NSSS and SDN will help in this regard) and the appropriate Construction Category
2. Nominate third party certification of steelwork under the NSSCS
3. Implement surveillance to ensure the intent of your procurement specifications has been actioned

The benefits for clients and Government include:

- Assurance that the steelwork contractor is competent as assessed by an expert process
- Assurance that the tender offer is based on a like-for-like quality comparison and not compromised on quality, therefore minimising likely costly rework and remediation
- Management of risk and your duty of care under the *Workplace Health and Safety Act (Safe design of structures)*
- Utilising a steelwork fabricator who has invested in training, apprenticeships, systems and capability over those who quote on price alone
- Support development of a world class steelwork fabrication industry in Australia

BUILDERS

The process to achieve the quality benchmark for builders is:

1. Ensure processes and documentation are consistent with the Construction Category for the project or component being undertaken. AS/NZS 5131 defines the requirements. The NSSS actions these requirements
2. Provide necessary project-specific documentation as and when needed
3. Provide the Declaration of Compliance (DoC) for the products covered

The benefits for builders include:

- Avoids the cost of setting up an in-house fabricator quality capability assessment team
- Provides an assessor with intimate knowledge of steelwork fabrication
- Provides the ability to nominate a fabricator for which the builder can request assessment
- Is fit-for-purpose based on risk assessment, and is therefore cost effective
- Provides a mechanism to feedback project outcomes and request special fabricator assessment
- Reduces costs of rectification and rework, utilising fabricators proven to meet the minimum requirements of Australian Standards
- Frees up valuable personnel to focus on the project issues and delivery they were trained for

FABRICATORS

The process of SCA certification for structural steelwork fabricators varies according to the Construction Category applied for and is briefly outlined below. In all instances the fabricator must:

1. Complete an application
2. Undergo a desktop audit
3. Following resolution of any shortfalls or issues, undergo a detailed site audit (if seeking certification to CC2, CC3 and CC4)

The benefits for fabricators include:

- A proven commitment to capability based on chosen certification level helps distinguish you in the eyes of clients
- A de-facto 'National Technical Prequalification Scheme' that in time will become common across the industry, increasing productivity, saving you significant time and cost in tender submissions and multiple certifications
- The site audit and ensuing gap analysis can prompt demonstrable improvements in internal process efficiencies
- A uniform transparent quality bar to support fair competition with your peers

GOOD PRACTICE STEELWORK PROCUREMENT

FOLLOWING INTERNATIONAL GOOD PRACTICE, THE AUSTRALIAN STEEL INSTITUTE NOW PROVIDES A FRAMEWORK FOR RISK CATEGORISATION AND STEELWORK FABRICATOR PREQUALIFICATION, ENABLING COST-EFFECTIVE PROCUREMENT OF COMPLIANT STEELWORK STRUCTURES.



FURTHER INFORMATION



Visit the SCA Website >>>



Visit the ASI Website >>>



Find an SCA Certified Company >>>



Contact SCA >>>

STEEL SUSTAINABILITY AUSTRALIA



OVERVIEW

Steel Sustainability Australia (SSA) offers a new certification program that provides a clear pathway for steel businesses to operate more responsibly and transparently while being part of an environmentally and socially sustainable future.

The SSA program was developed by the Australian Steel Institute (ASI). Superseding ASI's Environmental Sustainability Charter (ESC), the SSA program engages the entire steel value chain by certifying downstream steel businesses such as fabricators, roll formers, and reinforcing processors, and verifying upstream steel producers against best practice environmental, social and governance (ESG) indicators aligned to the principles supporting the Green Building Council of Australia's (GBCA) Responsible Product Framework.

THE SSA CERTIFICATION PROGRAM

- Assures certified steel suppliers adhere to best practice sustainable operations in the responsible sourcing and manufacturing of their steel products
- Promotes steel as a sustainable material choice, supporting mega trends such as embodied carbon reduction and circularity/circular economy
- Provides specifiers, engineers, builders and government with the means to identify sustainable steel suppliers through transparent and consistent measurement of environmental, social and health impacts across the entire steel value chain
- Is a recognised initiative under Green Building Council of Australia's (GBCA) Responsible Product Framework, rewarding points under Green Star rating tools

BENEFITS FOR SSA CERTIFIED SUPPLIERS

Downstream steel businesses like fabricators, roll formers, and reinforcing processors can derive a raft of benefits from SSA certification:

- **Competitive Advantage:** Suppliers can quote with confidence on projects with sustainability specifications. Listing of SSA Suppliers available on website.
- **Can Improve Bottom Line:** Through delivering operational efficiencies and reducing business costs.
- **Green Star Projects:** SSA Certified Suppliers are recognised by the GBCA as manufacturing 'responsible products', which may contribute to a Green Star rating through its Responsible Credits.
- **Tiers of Achievement:** The program offers three varying levels of achievement, making the certification journey easier.
- **Best Practice Sustainability:** Demonstrates and provides assurance that your operations are meeting best practice ESG sustainability performance expectations.
- **Promotes Your Brand:** Promotes to potential clients your company's ESG sustainability credentials in one program.
- **Independently Audited:** Certification to the SSA program is assessed by independent auditors.
- **Resources and Discounts:** Access to sustainability tools and resources, plus discounts available to ASI and SRIA members.

BENEFITS FOR SPECIFIERS AND PROCUREMENT PROFESSIONALS

From compliance with ESG indicators to Green Star Points, SSA certification offers a range of benefits for specifiers and procurement professionals:

- **Access Sustainable Steel Suppliers:** Allows project owners to identify sustainable steel suppliers who can deliver projects to the desired specification. Listing of SSA Suppliers available on website.
- **Transparency of Measurement:** The SSA certification program's transparent measurement of the ESG impacts of products and processes provides assurance that the steel supply is reducing its environmental and social impact.
- **Developed by Sustainability Leaders:** The SSA certification program was developed with thinkstep-anz, one of the region's leading sustainability consultancies.

- **Green Star Projects:** SSA Certified Suppliers are recognised by the GBCA as manufacturing ‘responsible products’, which may contribute to a Green Star rating through its responsible credits.
- **Responsibly Sourced Products:** Ensures the steel supply is responsibly sourced from manufacturers that are actively managing the environmental and social impacts of their steel manufacturing operations.
- **Best Practice for ESG Performance:** Certifies compliance to ESG sustainability indicators across the entire steel value chain in one program, setting a best practice sustainability standard for steel suppliers and their products.
- **Backed by ASI:** Backed by the Australian Steel Institute, the peak industry body representing the entire steel supply chain, who manage a range of other compliance solutions including SCA and ShedSafe.
- **Independently Audited:** Certification to the SSA program is assessed by independent auditors.

LEVELS OF CERTIFICATION

The SSA certification program assesses compliance to a mix of environmental, social and governance (ESG) criteria and provides 4 pathways (L1, L2A, L2B, L3) to achieve certification. The SSA program is a recognised certification initiative for GBCA’s Green Star rating tools. Products manufactured by SSA certified facilities achieve varying Responsible Product Values (RPVs) for each SSA certification level which may contribute to a project’s Green Star rating through the 4 Responsible Product Credits.

Level 1: The entry level of SSA certification (4 RPV) can be combined with other valid certifications to achieve Green Star credits.

Level 2: Achieves ‘Good Practice’ Green Star recognition (10 RPV) and offers two pathways to comply; 2A certification, where product-specific EPD/s can be provided and 2B certification, where no EPD/s can be provided.

Level 3: Aspirational level of certification assesses extended compliance requirements to achieve ‘Best Practice’ Green Star recognition (15 RPV).

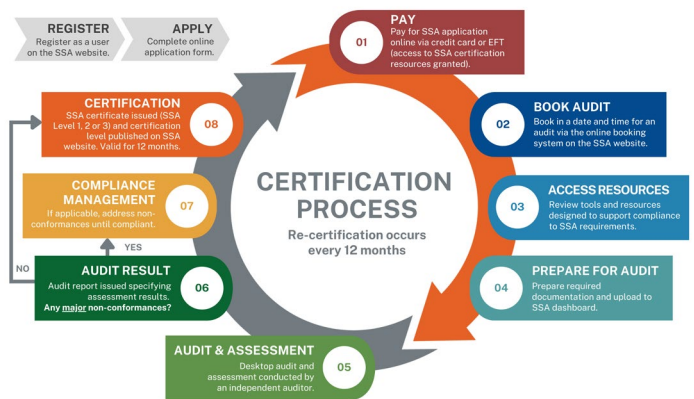
Principle	Credit	L1	L2A	L2B	L3
Governance	1.1 Business Integrity	✓	✓	✓	✓
	1.2 Management Systems	✓	✓	✓	✓
	1.3 Stakeholder Engagement	✓	✓	✓	✓
Responsible	2.1 Environmental Management	✓	✓	✓	✓
	2.2 Environmental Product Declaration		✓	✓	✓
	2.3 Health Impacts Disclosure			✓	✓
Healthy	3.1 Paints and Coatings		✓	✓	✓
	3.2 OH&S Management	✓	✓	✓	✓
	3.3 Procurement OH&S Assessment		✓	✓	✓
	3.4 Modern Slavery			✓	✓
Positive	4.1 Steel Supply Sourcing	✓	✓	✓	✓
	4.2 Carbon Emissions Reduction				✓
Circular	5.1 Resource Management		✓	✓	✓
RPV Total*		4	10	10	15

APPLICATION PROCESS

SSA Applicants are subjected to an annual, site-based desktop audit conducted by an independent auditor to assess compliance to the requirements relevant to the chosen level of certification (SSA L1, 2A, 2B or 3). The audit assesses the management systems, and on-site operations and practices in manufacturing the finished steel product.

RECOGNITION OF ESC CERTIFICATION

As of January 2023, SSA has replaced the ASI Environmental Sustainability Charter (ESC). ESC certificates (even though expired) may still be recognised for existing Green Star projects under the old rating tool, ‘Design and As Built’ where the ESC was specified for structural steel supply.



* GBCA Responsible Product Value (RPV)’s may contribute to a Green Star rating. Refer to the GBCA website for information on Green Star ratings.

FURTHER INFORMATION



Visit the SSA Website >>>



Contact the SSA >>>



Find an SSA Certified Supplier >>>

OVERVIEW

A third-party accreditation program managed by ASI, ShedSafe was developed at the request of industry to promote and publicise compliance with the Building Code of Australia for cold formed and hot rolled portal frame steel sheds. As the industry benchmark for Australian manufactured steel sheds, ShedSafe accreditation assures consumers that the:

1. Shed seller has recommended a design with an appropriate site classification using the ASI Site check program that checks wind and snow loads for the intended site.
2. The Shed manufacturer is supplying site specific certification by an approved engineer that the shed is engineered to meet the requirements of the National Construction Code.

ShedSafe accreditation is applicable to cold formed portal frame, hot rolled steel frame and stud frame buildings with spans of 6m to 40m. Any manufacturer whose sheds fall within this scope may apply for ShedSafe accreditation. ShedSafe is not applicable to garden sheds, carports, or houses.

The rate of adoption of third-party certification under ShedSafe has grown steadily over the last few years, with over 1000 accredited users selling ShedSafe accredited sheds.

THE HISTORY OF SHEDSAFE

In 2006, following the devastation caused by Cyclone Larry in North Queensland, government regulators and building certifiers called on ASI to facilitate design compliance with the Building Code of Australia for steel sheds.

In response, ASI published the Steel Shed Design Guide for Portal Frames Sheds and Garages, and established ShedSafe. The Steel Shed Design Guide provides detailed information for engineers and designers on the correct application of design codes for steel sheds.

The ShedSafe program was created to ensure shed designs meet the intent of the Building Code of Australia and Site Check for suitability for the intended location.

KEY ASPECTS OF SHEDSAFE

Applicants are required to submit several completed projects with supporting engineering calculations. Designs are reviewed by an independent panel of consultants to ensure design principles and documentation are consistent with the Building Code of Australia. Manufacturers are then subject to ongoing audits.

All sheds are required to have site specific engineering certification including site classification of wind, snow and earthquake loadings. ShedSafe members have access to Site Check—a web-based site classification tool specifically designed for the Australian steel shed industry.

Utilising Site Check, engineers can review both the location and design of a proposed shed and certify that the structure is compliant to Australian Standards for wind, snow and earthquake loadings for the specific location. As such, consumers have peace of mind that the correct specifications are adhered to for their specific shed and site.

MEMBERSHIP CRITERIA

To achieve and maintain ShedSafe accreditation, companies must:

- Be fully compliant with the requirements of the Building Code of Australia and the ASI's Steel Shed Design Guide for Portal Frames Sheds and Garages.
- Successfully complete an independent third-party design and documentation check, and comply with any ongoing 'spot audits' of designs
- Provide site specific engineering certification for all sheds, including site classification of wind, snow and earthquake loadings that are evaluated and signed off by an approved engineer.
- Successfully complete a design audit of selected completed projects on an annual basis.

FURTHER INFORMATION



Visit the ShedSafe
Website >>>



Contact ShedSafe >>>



Find a ShedSafe
Accredited Manufacturer >>>

ABOUT THE AUSTRALIAN STEEL INSTITUTE (ASI)



The Australian Steel Institute (ASI) is the nation's peak body representing the entire steel supply chain, from the primary producers right through to end users in building and construction, resources, heavy engineering and manufacturing.

Steel is the backbone of Australia's construction, resources, infrastructure and manufacturing sectors. It is a vital and sustainable source of innovation, employment and capability in our cities and our regional communities.

A member-based organisation, the ASI's activities extend to, and promote, advocacy and support, steel excellence, standards and compliance, training, events and publications.

Our Vision: To influence profitable growth for the complete Australian steel value chain.

Our Mission:

- To promote steel as the material of choice.
- To promote the capability and capacity of the Australian steel supply chain.
- To provide leadership in advocacy, compliance, safety, sustainability and technical education.

LEADERSHIP AND ADVOCACY

The ASI provides marketing and technical leadership to promote Australian-made steel as the preferred material to the building, construction, resources, and manufacturing industries, as well as policy advocacy to government.

It exists to represent the Australian steel industry and to support its future growth, so that the industry can maintain and create jobs and income for Australia, and provide the highest-quality certified steel products for Australians.

The ASI achieves this by ensuring that political and policy decision makers, industry, consumers, allied industries and professions, and other key stakeholders continue to recognise the strength, beauty and versatility of Australian steel, and the importance of maintaining and growing a strong steel industry sector.

COORDINATION

The ASI acts as the focal point for the steel industry, providing leadership on all major strategic issues affecting the industry. It focuses particularly on economic, environmental and social sustainability, and works with government, the media and other associations to provide an independent voice for industry. This includes promoting the advantages of local content procurement in the nation's interest, both to the client and to government.

TECHNICAL SUPPORT

The technical support arm of the ASI facilitates events and technical training at both shop floor vocational and degree-qualified continuing professional development level, as well as case study seminars and awards. The ASI also publishes industry-leading journals based on the latest research.

The technical references provided through the ASI's electronic online resources and library are proudly the best in the southern hemisphere. With longstanding links to global research and other steel industry associations such as the World Steel Association, the ASI can offer a truly international solution.

FURTHER INFORMATION



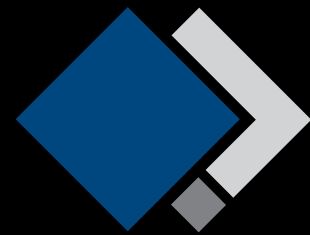
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