

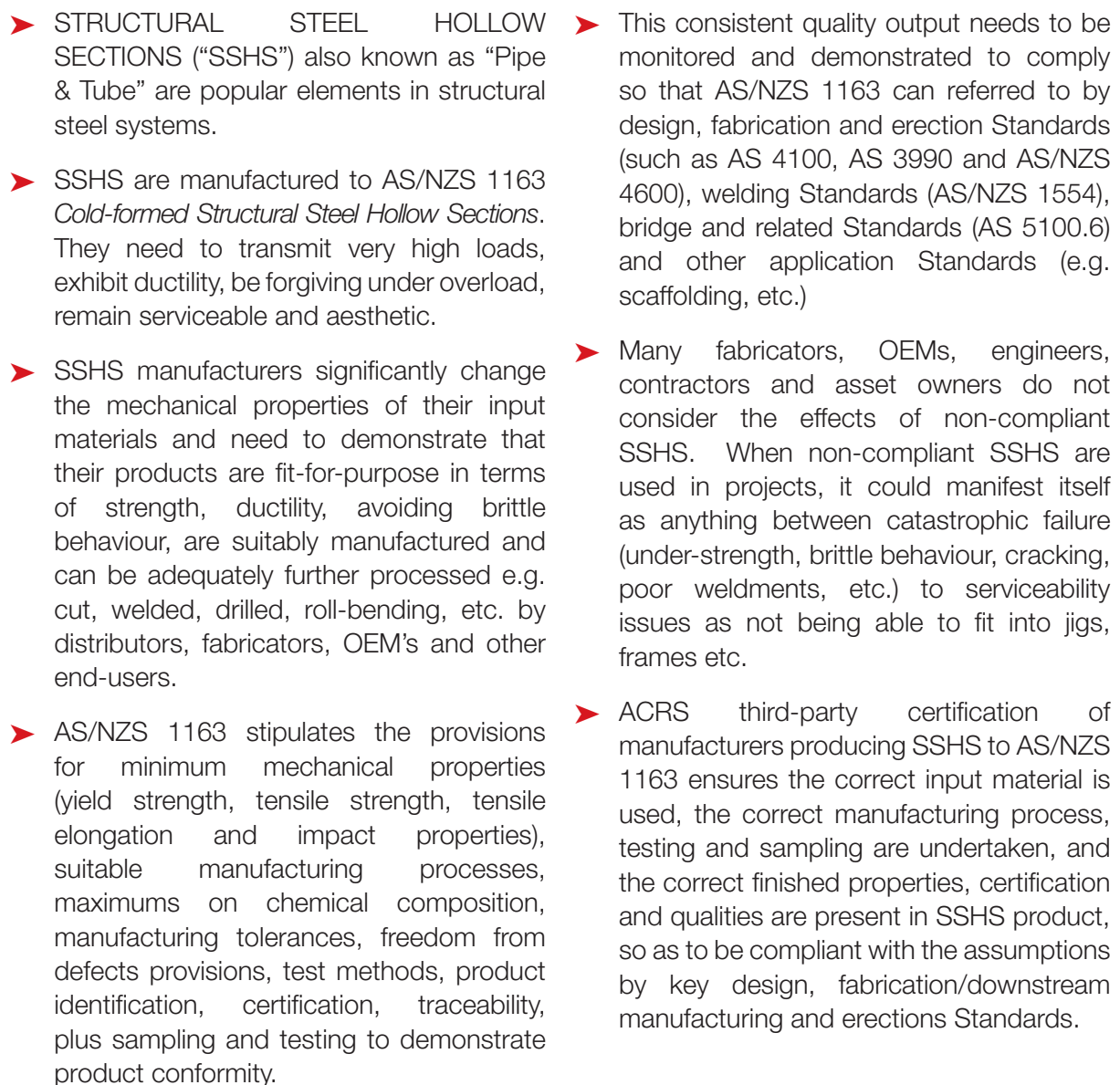


Independent Third Party
Australasian Standards
Certification & Verification of
Reinforcing, Prestressing &
Structural Steels
Compliance

WHY DO STRUCTURAL STEEL HOLLOW SECTIONS NEED **THIRD PARTY PRODUCT CERTIFICATION**

- ACRS Certificates of Product Compliance cover reinforcing steel, prestressing steel and structural steel products supplied to Australian and New Zealand standards.
- ACRS provides a vital link between the steel product manufacturer and the construction site, and ensures that all materials are from an ACRS certified supplier and satisfy the requirements of the relevant AS/NZS Steel Standard.
- Materials are sourced widely in Australia, New Zealand and overseas, and manufactured to all kinds of Standards, even no Standards, so you need to check what you are getting.
- ACRS Certificates of Product Compliance are your assurance that the Structural Steel Hollow Sections you are using, comply with AS/NZS 1163
- SSHS manufacturers significantly change the mechanical properties of their input materials and need to demonstrate that their products are fit-for-purpose in terms of strength, ductility, avoiding brittle behaviour, are suitably manufactured and can be adequately further processed e.g. cut, welded, drilled, roll-bending, etc. by distributors, fabricators, OEM's and other end-users.

AVOID THE RISKS OF USING NON-COMPLIANT PRODUCT

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- ▶ STRUCTURAL STEEL HOLLOW SECTIONS (“SSHS”) also known as “Pipe & Tube” are popular elements in structural steel systems.
 - ▶ SSHS are manufactured to AS/NZS 1163 *Cold-formed Structural Steel Hollow Sections*. They need to transmit very high loads, exhibit ductility, be forgiving under overload, remain serviceable and aesthetic.
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 - ▶ AS/NZS 1163 stipulates the provisions for minimum mechanical properties (yield strength, tensile strength, tensile elongation and impact properties), suitable manufacturing processes, maximums on chemical composition, manufacturing tolerances, freedom from defects provisions, test methods, product identification, certification, traceability, plus sampling and testing to demonstrate product conformity.
 - ▶ This consistent quality output needs to be monitored and demonstrated to comply so that AS/NZS 1163 can be referred to by design, fabrication and erection Standards (such as AS 4100, AS 3990 and AS/NZS 4600), welding Standards (AS/NZS 1554), bridge and related Standards (AS 5100.6) and other application Standards (e.g. scaffolding, etc.)
 - ▶ Many fabricators, OEMs, engineers, contractors and asset owners do not consider the effects of non-compliant SSHS. When non-compliant SSHS are used in projects, it could manifest itself as anything between catastrophic failure (under-strength, brittle behaviour, cracking, poor weldments, etc.) to serviceability issues as not being able to fit into jigs, frames etc.
 - ▶ ACRS third-party certification of manufacturers producing SSHS to AS/NZS 1163 ensures the correct input material is used, the correct manufacturing process, testing and sampling are undertaken, and the correct finished properties, certification and qualities are present in SSHS product, so as to be compliant with the assumptions by key design, fabrication/downstream manufacturing and erections Standards.

 **SPECIFY THE STANDARDS AND THE MEANS OF CHECKING COMPLIANCE**

 **SPECIFY ACRS CERTIFIED SSHS MANUFACTURERS**

WHY YOU NEED ACRS THIRD PARTY CERTIFICATION FOR STRUCTURAL STEEL HOLLOW SECTIONS

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- Materials are sourced widely in Australia, New Zealand and overseas, and manufactured to all kinds of Standards, even no Standards, so you need to check what you are getting.
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SPECIFY THE STANDARDS AND ALSO THE MEANS OF CHECKING COMPLIANCE

- As well as specifying the relevant Standard, project teams and design engineers need to specify the mechanism for demonstrating compliance such as ACRS third party product certification.
- If the means of demonstrating compliance is not detailed, then the risk of non-compliant steels from the market place being supplied is greatly increased.

WHAT ARE THE RISKS OF USING NON-COMPLIANT PRODUCT

- Lack of certainty of compliance without checking/validation by an independent specialist third party product certification body such as ACRS increases the risk of receiving non-conforming product
- Products used in building and construction need to comply with the relevant quality and safety Standards covered under the Australian National Construction Code (NCC) and the New Zealand Building Code responsibilities (e.g. s14C owner/builder, s14D designer, s14E builders and s14G manufacturers/suppliers).
- Construction works not covered by the NCC, such as infrastructure and unique structures, are subject to the Standards nominated by the relevant designer/engineers and contract documentation.
- In all cases, the building designers & other professionals such as engineers should nominate, through plans and specifications, the Standards that must be met by the building & construction products used for a project. The relevant designer/engineer should also specify what level of evidence should be accepted as proof that a building product meets the specified standard.
- In addition to the NCC and contractual responsibilities, the Australian workplace health and safety laws set out additional responsibilities for various types of procurers (e.g. designers, builders and all associated contractors and workers) with respect to product conformance and safety.
- Australia and New Zealand are part of a global supply chain and building & construction products are now being sourced from overseas and local manufacturers and suppliers. Evidence is increasing that many suppliers of products, regardless of where they are made, are not providing evidence that they meet Australian and New Zealand Standards and building requirements, and hence they may not comply.



AVOID THE RISKS OF USING NON-COMPLIANT PRODUCT

- ✓ **SPECIFY THE STANDARDS AND THE MEANS OF CHECKING COMPLIANCE**
- ✓ **SPECIFY ACRS CERTIFIED SSHS MANUFACTURERS**

ABOUT ACRS

- ACRS (the Australasian Certification Authority for Reinforcing and Structural Steels) was established in 2000 with the support and endorsement of leading engineering and construction groups, such as Austroads, Engineers Australia, Consult Australia, Master Builders Association, the Housing Industry Association and others,
- ACRS has provided consistent rigorous checking of compliance by highly experienced assessors with over 1,100 audits and 3,500 materials assessments now completed.
- ACRS certifies steel manufacturing & processing companies at over 150 locations in over 15 countries for construction steel products supplied to Australian and New Zealand standards.
- In addition, the number of companies submitting themselves for ACRS assessment and then either withdrawing or failing – over 50 since 2010 – shows that the minimum quality available in the market for compliant products is maintained by ACRS rigorous assessment.
- The ACRS Scheme Rule on “All Products All locations” to be certified has been instrumental in ensuring verification of compliance across the full range of certificate holders’ activities.
- ACRS is recognised locally and internationally for its expertise in checking compliance of construction steels to AS/NZS Standards.
- ACRS is a JAS-ANZ accredited, not-for-profit, independent Authority that provides expert, impartial assessment and certification that gives specifiers and customers the widest available choice of construction steel materials demonstrably compliant with Australian and New Zealand Standards.



For further information about the validity of certification for any materials being supplied into your project, contact ACRS:

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– for full details of all ACRS
Certificate holders and products

www.steelcompliance.com

– how to reduce the risks of
non-compliant products