

Conditions for Use of AS/NZS 1554 Welding Procedures

SCOPE

This welding procedure is intended to be utilised for the welding of steelwork in structures complying with AS 3990, AS 4100, AS/NZS 4600, NSZ 3404.1, as well as for the welding of cranes and hoists, road and pedestrian bridges, and welding of steelwork in applications other than structural where agreed with the Principle / Client. See WTIA Technical Note 11 for further guidance.

This welding procedure is suitable for GP (general purpose) and SP (structural purpose) weld categories as well as for steel structures subject to high levels of fatigue loading in accordance with AS/NZS 1554 Part 5.

Welding procedures may require client / project approval prior to use.

USE OF THIS WELDING PROCEDURE

The manufacturer or contractor shall be responsible for application of this welding procedure and comply with AS/NZS 1554 Clause 4.4 and the following requirements prior to use in production:

- a) Enter name of the manufacturer or contractor on the welding procedure.
- b) An employee of that manufacturer or contractor shall sign and date the welding procedure.
- c) The manufacturer or contractor shall demonstrate successful welding of a welder qualification test using the procedure.

LIMITATIONS OF WELDING PROCEDURES

- a) Any change outside of the essential variables stated on the welding procedure shall require qualification of a new welding procedure in accordance with AS/NZS 1554 Section 4.2.
- b) Only the steel types stated on the welding procedure may be welded. Steel type designations for specific material grades are listed in AS/NZS 1554 Table 4.6.1(B). Unlisted materials may be used if they are tested and/or confirmed to be compliant with any of the grade types in Table 4.6.1(B) as per Clause 2.1, to the satisfaction of the Principal / Client.

OTHER WELDING PROCEDURE RESTRICTIONS

- a) The manufacturer or contractor may not deviate from the welding conditions specified on the welding procedure.
- b) This welding procedure may not be supplemented with PQRs or revised in any manner (apart from the inclusion of non-technical information, such as company logo, signature, etc).
- c) The Workmanship requirements of AS/NZS 1554 Section 5 shall be adhered to.
- d) As per Clause 4.12, all welding shall be carried out under the supervision of a suitably qualified and experienced welding supervisor employed by or contracted to the fabricator.

CONSUMABLES

- a) Consumables may require special conditioning, storage, and handling prior to and during production to ensure hydrogen status classification is maintained.
- b) See ASME II Part C Annex A Table A3 for guides on consumable treatments.
- c) Use manufacturer recommendations for consumable conditioning if those recommendations differ from that detailed in ASME II Part C Annex A Table A3.

GUIDELINES

- a) The user shall consider all AS/NZS 1554 design requirements where restrictions may apply in particular to joint design and WPS application for welding of steel structures subject to high levels of fatigue loading to AS/NZS 1554 Part 5.
- b) The user needs a significant knowledge of welding and accepts full responsibility for the performance of the weld and for providing the engineering capability, qualified personnel, and proper equipment to implement this welding procedure.
- c) The user shall consider applicability or relevance of health and safety regulatory limitations / precautions prior to use.