

Title	Perform electrofusion jointing on polyethylene pipe for a network		
Level	4	Credits	6

Purpose	<p>This unit standard is for people working in the infrastructure pipelaying industries.</p> <p>People credited with this unit standard are able to locate and identify procedures, documentation, and equipment for electrofusion jointing; and, prepare for and perform electrofusion jointing.</p>
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Classification	Plastics Processing Technology > Plastics Fabrication
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Available grade	Achieved
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Guidance Information

- 1 Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable manufacturer's specifications, company and legislative requirements.
- 2 Legislation, regulations and/or Industry Standards relevant to this unit standard includes but is not limited to the current version of including updated amendments to, and replacements of – Health and Safety at Work Act 2015, Resource Management Act 1991, Australian and New Zealand Standards (AS/NZS), Plastics Industry Pipe Association of Australia (PIPA) guidelines.
- 3 **Definition**
Company requirements refer to instructions to staff on policy and procedures which are documented in memo or manual format and are available in the workplace. These requirements include but are not limited to – company specifications and procedures, work instructions, manufacturer specifications, product quality specifications and legislative requirements.
- 4 This unit standard is intended for people who work with fusion welding plastic piping to transport either gas or water as described in AS/NZS 4130:2009.
- 5 The unit standard is intended for, but is not limited to, workplace assessment.
- 6 It is recommended that people intending to gain credit for this unit standard first hold credit for Unit 25610, *Demonstrate knowledge of equipment and operations for jointing polyethylene pipe for a network*.

Outcomes and performance criteria

Outcome 1

Locate and identify procedures, documentation, and equipment for electrofusion jointing.

Performance criteria

- 1.1 Company procedures for electrofusion jointing are read and interpreted in relation to specified job requirements.
- 1.2 Job instructions are confirmed.
- Range instructions include – site location, utility plans and/or mark-outs, consents, easements.
- 1.3 Potential environmental and safety risks are identified.
- 1.4 Electrofusion jointing equipment and components are identified and their purpose and main features are described.
- Range leads, fusion unit, clamps, power source, residual current device, cutters, scrapers, cleaning agents, pipe, fittings configurations and operation.
- 1.5 Potential risks of incorrect application and operation of equipment, and the steps to avoid them are described.
- 1.6 Resource requirements are identified and sourced.
- Range plant, tools, materials, documentation, system components, personnel.

Outcome 2

Prepare for electrofusion jointing.

Range saddle fitting, socket type fitting.

Performance criteria

- 2.1 Safety and environmental risks are either isolated, removed, or minimised.
- Range actions may include but are not limited to – signage, barriers, personal protective equipment, safe access and egress, temporary traffic control, environmental protection.

- 2.2 Electrofusion jointing equipment and materials are prepared, handled, and positioned.
- Range leads, fusion unit, clamps, power source, residual current device, cutters, scrapers, cleaning agents, pipe, fittings configurations and operation.
- 2.3 Pipe and fittings are quality checked.
- Range pipe size and standard dimension ratio, pipe surface damage, ovality and pipe end reversion, fitting package damage, fitting damage.
- 2.4 Pipe and fittings are prepared for electrofusion jointing.
- Range cut square, length marked, cut to length, dry, free from oxidisation, contaminant-free, cleaning agent, covered, pipe end alignment, clamped.
- 2.5 Fusion unit is set up.
- Range fusion time, voltage level, verification of settings.

Outcome 3

Perform electrofusion jointing.

Range saddle fitting, socket type fitting.

Performance criteria

- 3.1 Joints are made by electrofusion jointing.
- 3.2 The cooling period is identified and applied before handling and/or pressurising joint.
- 3.3 A check is carried out to ensure the integrity of the pipe joint.
- Range check may include but is not limited to – visual assessment, on site pressure check, physical inspection.
- 3.4 Identification is assigned to the weld.
- Range may include but is not limited to – weld number, date, weld data print out.

Planned review date	31 December 2021
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 June 1997	31 December 2018
Revision	2	3 August 2000	31 December 2018
Review	3	22 October 2002	31 December 2018
Review	4	20 November 2006	31 December 2018
Review	5	20 November 2009	31 December 2020
Review	6	20 October 2016	N/A
Revision	7	30 August 2018	N/A

Consent and Moderation Requirements (CMR) reference

0014

This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact MITO New Zealand Incorporated info@mito.org.nz if you wish to suggest changes to the content of this unit standard.