

National Certificate in Welding (Level 4)

Level 4

Credits 60

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2021.

Transition Arrangements

This qualification was republished in October 2017 to extend the last date for enrolment from 31 December 2017 to 31 December 2018.

This qualification has been reviewed and replaced by the New Zealand Certificate in Engineering Fabrication (Trade) (Level 4) with strands in Heavy Fabrication, Light Fabrication, and Steel Construction [Ref: 2719].

The last date for entry into programmes leading to this qualification is 31 December 2018. The last date for assessments to take place for this qualification is 31 December 2021 when the qualification will be discontinued.

People currently working towards this qualification may either complete the requirements by 31 December 2021 or transfer their results to the replacement qualification.

For detailed information see [Review Summaries](#) on the NZQA website.

NZQF National Qualification Registration Information

Process	Version	Date	Last Date for Assessment
Registration	1	February 2011	December 2021
Review	2	July 2015	December 2021
Republication	2	May 2016	December 2021
Republication	2	October 2017	December 2021

Standard Setting Body

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Purpose

This qualification is for professional welders. It builds on the knowledge and skills gained in introductory welding qualifications such as the National Certificate in Welding (Level 3) [Ref: 1615]. Successful candidates have demonstrated welding skills to industry standards and codes in a number of practical welding applications of steel, aluminium, stainless steel, and pipe welding.

The compulsory standard covers the knowledge and skills relevant to calculating the quantities of welding consumables required for a particular welding job.

The standards in the Elective section cover knowledge and skills relevant to a wide range of welding positions and materials. This allows candidates to select standards that correspond to the type of welding practised in their workplace.

This qualification leads to the Engineering Fabrication strand of the National Certificate in Mechanical Engineering (Level 5) with strands in Engineering Fabrication, Fire Protection, General and Maintenance Engineering, Mechanical Services, and Precision Engineering [Ref: 1545].

Special Notes

Prerequisites

Before entering a programme for this qualification, candidates must have achieved either

- the National Certificate in Welding (Level 3) [Ref: 1615]; or
- a similar qualification covering welding basics and safety; properties of metals; welding drawings; principles and practical welding of steel, stainless steel, and aluminium in downhand positions; and use of the following processes:
 - manual metal arc welding (MMAW);
 - gas metal arc welding (GMAW or MIG);
 - gas tungsten arc welding (GTAW or TIG); and
 - manual cutting of steel.

Credit Range

	Compulsory	Elective
Level 3 credits	4	0-16
Level 4 or above	-	40-56
Minimum totals	4	56

Requirements for Award of Qualification

Award of NZQF National Qualifications

Credit gained for a standard may be used only once to meet the requirements of this qualification.

Unit standards and achievement standards that are equivalent in outcome are mutually exclusive for the purpose of award. The table of mutually exclusive standards is provided on the New Zealand Qualifications Authority (NZQA) website: <http://www.nzqa.govt.nz/qualifications-standards/standards/standards-exclusion-list/>.

Reviewed standards that continue to recognise the same overall outcome are registered as new versions and retain their identification number (ID). Any version of a standard with the same ID may be used to meet qualification requirements that list the ID and/or that specify the past or current classification of the standard.

Summary of Requirements

- Compulsory standards
- Elective – A minimum of 56 credits as specified

Detailed Requirements

Compulsory

The following standard is required

Engineering and Technology > Mechanical Engineering > Engineering - Fabrication

ID	Title	Level	Credit
16955	Calculate sizes, mass, volumes, and quantities for fabrication	3	4

Elective

A minimum of 56 credits

- Of which a minimum of 40 credits at Level 4 or above

Engineering and Technology > Mechanical Engineering > Welding

ID	Title	Level	Credit
2671	Weld steel structures in the downhand positions using the manual metal arc welding process	3	6
2673	Weld steel structures in the downhand positions using the gas metal arc and flux cored arc welding processes	3	6
2674	Weld stainless steel plate in the downhand positions using the gas metal arc and flux cored arc welding processes	3	6
2675	Weld aluminium in the downhand positions using the gas metal arc welding process	3	6
2678	Join metals using the oxyacetylene welding process	3	6
2679	Join metals using the torch brazing and soldering processes	3	6

ID	Title	Level	Credit
2680	Join metals using the resistance welding process	3	4
2681	Weld steel structures using the submerged arc welding process	3	6
2684	Weld steel structures in all positions using the gas metal arc or flux cored arc welding processes	4	10
2685	Weld steel structures in all positions using the manual metal arc welding process	4	10
2686	Weld aluminium in all positions using the gas metal arc welding process	4	10
2687	Weld stainless steel sheet and plate in all positions using the gas metal arc or flux cored arc welding process	4	10
2688	Weld stainless steel tube using the gas tungsten arc welding process	4	12
2689	Weld aluminium in all positions using the gas tungsten arc welding process	4	10
2690	Weld steel pipe using the oxyacetylene welding process	4	12
2691	Cut metals using mechanised thermal cutting equipment	4	4
2692	Repair non-ferrous metal components using welding processes	4	10
2693	Repair ferrous metal components using welding processes	4	10
2694	Weld steel pressure pipe using the manual metal arc welding process with cellulosic electrodes	4	20
2695	Weld steel pressure pipe using the gas tungsten arc and manual metal arc welding processes	4	20
2696	Weld steel or stainless steel pressure pipe in all positions using the gas tungsten arc welding process	4	12
2697	Weld aluminium pipe in all positions using the gas tungsten arc welding process	4	12
2698	Cut metal using an automated cutting machine	5	10
18106	Gouge steel using the air carbon arc process	3	4

Certification

This certificate will display the logos of NZQA, Competenz and the organisation that has been granted consent to assess against standards that meet the requirements of the qualification (accredited).

Classification

This qualification is classified according to the classification system listed on the Directory of Assessment Standards (DAS) and the New Zealand Standard Classification of Education (NZSCED) system as specified below.

DAS Classification		NZSCED	
Code	Description	Code	Description
777	Engineering and Technology > Mechanical Engineering > Welding	030711	Engineering and Related Technologies > Mechanical and Industrial Engineering and Technology > Boiler-making and Welding

Quality Management Systems

Providers and Industry Training Organisations must be granted consent to assess by a recognised Quality Assurance Body before they can register credits from assessment against standards. Accredited providers and Industry Training Organisations assessing against standards must engage with the moderation system that applies to those standards. Accreditation requirements and the moderation system are outlined in the associated Accreditation and Moderation Action Plan (AMAP) for each standard.

REVIEWING