National Certificate in Welding (Level 3)

Level **3**

Credits **68**

This qualification has been **reviewed**. The last date to meet the requirements is 31 December 2019.

Transition Arrangements

This qualification was republished in April 2019 to extend the last date for enrolment from 31 December 2018 to 30 April 2019. The last date for assessment is unchanged.

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This qualification has been replaced by the New Zealand Certificate in Mechanical Engineering (Level 3) [Ref: 2715].

The last date for enrolment into programmes leading to this qualification is 30 April 2019. The last date for assessments to take place for this qualification is 31 December 2019, when the qualification will be discontinued.

People currently working towards this qualification may either complete the requirements by 31 December 2019 or transfer their results to the replacement qualification.

This qualification contains expiring unit standards for which replacement unit standards have now been registered. For the purposes of this qualification, those people who have gained credit for the replacement standards are exempt from the requirement to gain credit for the expiring standards.

Credit for	Exempt from
29550	20799
29551	4797
29653	2432
29655	2430

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	31 December 2019
Review	2	July 2015	31 December 2019
Republication	2	May 2016	31 December 2019
Republication	2	October 2017	31 December 2019
Republication	2	April 2019	31 December 2019

Standard Setting Body

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National Certificate in Welding (Level 3)

Level **3**

Credits **68**

Purpose

This is an introductory qualification for people wishing to pursue a career in welding. It is aimed at preparing candidates to be productive in the use of basic welding techniques in industry.

The underpinning knowledge and skills covered in this qualification include welding safety; measurement; use of hand and power tools; sketching and reading drawings; welding theory for steel, stainless steel and aluminium; and weld quality assurance.

The practical welding skills in this qualification cover joining of steel, stainless steel, and aluminium, employing the following techniques:

- manual metal arc welding (MMAW);
- gas metal arc welding (GMAW or MIG);
- gas tungsten arc welding (GTAW or TIG); and
- cutting using manual processes.

The skills and knowledge recognised by this qualification relate to welding in downhand positions. More complex skills relating to welding using other hand positions are covered in the National Certificate in Welding (Level 4) [Ref: 1616] (see below).

All of the standards in this qualification are compulsory as they cover essential skills and knowledge required for basic welding. People that have completed this qualification will have the opportunity to specialise by undertaking the National Certificate in Welding (Level 4) [Ref: 1616], which includes a flexible elective section that can be tailored to individual preference and different work contexts.

Achievement of this qualification will prepare candidates for industry certifications to the following standards: AS/NZS 1554.1 (GP), AS/NZS 1554.6 (Class B), and AS/NZS 1665 (Category B).

This qualification shares credits in common with National Certificate in Mechanical Engineering (Level 2) [Ref: 1220]. This qualification leads to the National Certificate in Welding (Level 4) [Ref: 1616], which covers more complex welding in all positions; and pipe welding, and may also lead to the National Certificate in Engineering - Fabrication (Level 4) with strands in Heavy Fabrication, Light Fabrication, and Steel Construction [Ref: 0122].

Special Notes

1 This qualification could be achieved through a full-time course of 6 to 9 months duration at a training institution, or through an industry traineeship involving a combination of off-job and on-job learning.

2 Technical standards
AS/NZS 1554.1:2004, *Structural steel welding – Welding of steel structures.*
AS/NZS 1554.6:1994, *Structural steel welding – Welding stainless steels for structural purposes.*
AS/NZS 1665:2004, *Welding of aluminium structures.*

Credit Range

	Compulsory
Level 1 credits	2
Level 2 credits	25
Level 3 credits	41
Total	68

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

Detailed Requirements

Compulsory

The following standards are required

Engineering and Technology > Mechanical Engineering > Engineering Core Skills

ID	**Title**	**Level**	**Credit**
2395	Select, use and care for, engineering hand tools	2	4
2396	Select, use and maintain portable hand held engineering power tools	2	4
21911	Demonstrate knowledge of safety on engineering worksites	2	1
21912	Apply safe working practices on an engineering worksite	2	2

Engineering and Technology > Mechanical Engineering > Engineering Drawing and Design

ID	Title	Level	Credit
2430	Draw and interpret engineering sketches under supervision	2	4
2432	Construct engineering plane geometric shapes under supervision	2	3

Engineering and Technology > Mechanical Engineering > Engineering - Materials

ID	Title	Level	Credit
4797	Demonstrate knowledge of the composition of engineering metals	3	5
20799	Demonstrate basic knowledge of engineering metals	2	4

Engineering and Technology > Mechanical Engineering > Engineering - Measurement

ID	Title	Level	Credit
4433	Select, use, and care for simple measuring devices used in engineering	1	2

Engineering and Technology > Mechanical Engineering > Welding

ID	Title	Level	Credit
2672	Weld steel in the downhand positions to a general purpose industry standard using the gas metal arc welding process	3	6
2676	Weld stainless steel sheet using the gas tungsten arc welding process	3	6
2677	Weld aluminium in the downhand positions using the gas tungsten arc welding process	3	6
2682	Weld steel in the downhand positions to a general purpose industry standard using the manual metal arc welding process	3	6
2683	Cut metals using manual thermal processes	3	4
21907	Demonstrate and apply knowledge of safe welding procedures under supervision	2	3
22906	Demonstrate and apply knowledge of welding low carbon steel	3	3
22907	Demonstrate and apply knowledge of welding aluminium and stainless steel	3	3
25783	Demonstrate knowledge of metal cutting and gouging processes	3	2

Transition Arrangements

Version 1

This qualification contains standards that replace earlier standards. For the purposes of this qualification, people who have gained credit for the expiring standards are exempt from the requirement to gain credit for the replacement standards – see table below.

Credit for	Exempt from
2824	21911, 21912
4796	20799
2670	21907

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 Consent and Moderation Requirements (CMR) for each standard.