



WELDERS OVERVIEW RATES SVR CONNECT LTD

Overview for welding opportunities in New Zealand currently

The impact of the earthquakes was immense – especially in the short-term. However, New Zealand Prime Minister believes that, in the long-term, more people will come to live in Canterbury due to the opportunity the Christchurch Rebuild presents – especially migrants whose skills are needed for the rebuild.

The construction rebuild is expected to take over a decade. The present focus is on repairing the horizontal infrastructure in the city. The New Zealand Government will spend over 2 Billion NZD.

Welding rates in New Zealand

Skill: Welding Median Hourly Rate by Job

Job	National Hourly Rate Data
Welder	\$26.50 NZ Dollars
Structural Metal Fabricator/Fitter	\$26.50 NZ Dollars
Lathe, Turning Machine Tool Setter/Operator/Tender, Metal and Plastic	\$26.50 NZ Dollars
Manufacturing Engineer	\$26.50 NZ Dollars
Panel Beater	\$26.50 NZ Dollars

There are no specific **requirements** to become a **welder**. However, some employers prefer you to have a qualification. To become a qualified **welder** you need to complete an apprenticeship and gain either a: **New Zealand** Certificate in Engineering - Fabrication (Level 4), which is the **new** qualification.

QUALIFICATIONS

National Certificate in Welding Level 3 and National Certificate in Welding Level 4 Programme Information

Due to public demand we now have NZQA approval to offer this course.

The certificate course is designed for people wishing to pursue a career in welding. It is aimed at preparing people to be highly qualified in all aspects of welding and could lead to supervisory or inspection positions with suitable work and life experience.

QUALIFICATIONS CONTINUED

AS/NZS2980

Since the AS/NSZ2980 Welding Certificate was adopted in 2012, the Welding Academy has developed a training procedure that ensures the highest number of welders achieve this qualification for the least possible cost to the candidate.

AS/NZS2980 was established in 2010 combining the old 4711 and 4703 welding qualifications into a new certificate programme that is now internationally recognised, particularly in New Zealand, Australia & the UK.

Welding Positions

Mild Steel: All mild steel AS/NZS2980 testing is performed by butt welding to a specified welding procedure; the most common being 2 x 12 mm boiler plates 100-150mm wide by 300mm long. The formula for determining the range of steel thickness covered is from 3mm, to 2 x t where t = thickness. Consequently a candidate achieving AS/NS2980 by welding 12mm plate is covered for steel thickness ranging from 3-24mm. Therefore, a candidate requiring to be qualified to weld 25mm (or 1") steel would need to pass their AS/NZS2980 by welding steel at least 16mm thick. This is the case for both Arc and MiG welding processes.

All welds are multi run with a stop/start in both the route run and the capping run.

There are 4 main positional welds which the candidate can elect to sit the AS/NZS2980 welding test conditional upon proving competency in the lesser positions. In order of perceived difficulty these are:

- Flat - 1G - Welding flat on the bench
- Horizontal 2G - Welding plates horizontally as at eye-level
- Vertical Up - 3G Welding vertically from lowest position to highest
- Overhead - 4G Welding 180 deg. above the flat position

When the candidate passes the most difficult position, the lesser positions are granted as of right for no extra cost.

The mild steel test can be welded using either MiG, (GMAW) Flux Core (FCAW) and Arc (MMAW) in various positions which will be outlined below. Basically this test involves butt welding 2 x 12mm Boiler steel plates 300 x150mm. Those candidates who have never achieved a welding qualification are required



QUALIFICATIONS CONTINUED

Mild Steel Welding Processes:

There are 4 main welding processes for mild steel welding:

1. Arc using mild steel or
2. Low hydrogen electrodes. (If the candidate passes in low hydrogen, mild steel is granted for no cost.)
3. MiG using solid mild steel wire or
4. Flux cored wire

These are specific procedures and are tested separately.

The now 300 x 300mm weld test plate is cut into approx 40 mm strips which are nick broken through the weld and examined in-house for inclusion of impurities, porosity undercut, lack of inter-run fusion etc. Successful examples are sent to the lab for random radiological testing.

COSTS FOR CERTIFICATION

MIG and Arc AS/NZS2980 Procedures: \$425.00 incl. GST

Stainless Steel TIG Welding AS/NZS2980 Procedures:

This test replaces the former 4703 welding procedure.

- It is a 6G purge butt welded stainless steel tube in the 45 deg position
- It is welded non-rotationally with a weld incorporating both vertical up and down with 2 x stop/starts. Simply expressed the test piece is clamped at 45 deg. in a holder with purge hose attached and welding may begin at the bottom (or top) and weld down (or up) 180 deg
- The candidate starts from this point and welds vertically back up or down to the top, whereby all the conditions described above are satisfied
- The 2 test pieces must be at least 125 mm in length and 1.5 mm thick, which will qualify the candidate for tube welds of up to 3mm thick
- The diameter of the test piece determines the diameter of tube the candidate is qualified to weld adopting a simple equation which is $2 \times d$ and $1/2 \times d$
- So that assuming the candidate achieves AS/NZS2980 in 50mm S/S tube this will cover the welder for S/S tube from 100mm dia down to 25mm dia

The final condition to be satisfied is the examination length of the weld which must not be less than 150 mm, so that the smaller the diameter of the tube welded the more individual test pieces must be macro tested. So in the case of a 12.5mm dia test, to achieve an examination weld length of 150 mm 4 separate test pieces would have to be submitted. ($3.142 \times 12.5 = 39.27 \text{ mm} \times 4 = 157\text{mm}$; well within a 150 mm examination weld length).

Given the complexities of the AS/NZ 2980 welding test this explanation can only cover the broad scope of the procedure. We encourage all prospective candidates to visit our Academy to see what we do and talk to our tutor prior to undertaking a welding test.



COSTS FOR CERTIFICATION

COST FOR CERTIFICATION: \$590.00 (incl GST)

An additional cost of \$55.00 an hour applies for all TIG training aside from the 2 hours allocated for testing.

Aluminium AS/NZS1660 MiG

The Aluminium welding test is also tested in line with the AS/NZS2980 procedure previously described and each position tested accordingly to the position in order i.e.: flat, horizontal, vertical and then overhead. The alloy test is divided into categories depending on imperfections. Category A (8 complied specimens perfect), Category B (5 complied specimens), Category C (2 complied specimens).

COST FOR CERTIFICATION: \$702.60 (incl GST)

An extra cost applies for alloy training, excluding the 2 hours included in the test.