



Engineering Profile

Employment Nelson-Tasman

Introduction

Engineering is a large employer in Nelson because it is involved in the region's large forestry, fishing and manufacturing sectors. The industry is very keen to get young people into training in the engineering field. They offer a wide range of apprenticeship and training options. Nelson produces more engineering trades people than anywhere else in the country. There is opportunity and support, for those wanting to consider a career in engineering.

Employment in the Industry

Engineering employs approx 1700 people in the region.

- ◆ **Professional Engineers** usually specialise in one area, with a Bachelor of Engineering, a NZ Cert Engineering or an equivalent diploma. They are employed by government authorities, councils, or private industries. Major employment areas are research and investigation, design, construction and maintenance.
- ◆ Engineers who work for the fisheries come from general engineering backgrounds, and become specialised within the seafood industry.
- ◆ To become more than a "skilled labourer" further training is required. Engineers are generally employed on a full time basis.
- ◆ **Fitter Welder** is a welding fabrication engineer who makes, joins and repairs the metal parts for machinery and equipment, such as motor bodies, tailer units, containers, truck frames and bridges.
- ◆ **Fitter Turner** works from sketches or blueprints, use lathes including turning, boring and facing operations, fitting aligning and assembling various types of machinery, uses precision grinding equipment, makes and sharpens tools.
- ◆ **Boilermaker** a heavy fabrication engineer uses thick metal plates, pipes and shaped pieces (sections) to make and repair such things as the framework of buildings, ships' hulls, bridge, boilers, storage tanks and cranes.

What Employers Are Looking For

- ◆ Employers look for qualified or experienced trades people.
- ◆ People with general engineering skills are highly valued.
- ◆ With engineering it is important to have good problem solving skills and to be able to use initiative.
- ◆ A good understanding of maths, graphics, design and english.
- ◆ A positive attitude and willingness to do a job well are important.

Current Skill Shortages

- ◆ All trades associated with construction, engineering and boat building.
- ◆ Particular shortages include fitters, turners, welders, mechanics, and engineering labourers.
- ◆ People with skills in heavy fabrication - welding and working with metals.
- ◆ There is also a shortage of diesel mechanics.

ENGINEERING Employment Categories

Job Title Wages/Salary	No's Employ	Job Description	Training
Skilled/Semi Skilled Engineers	1000		
Engineering Apprentice \$15,600- \$33,200pa		On the job training varies depending on the industry	Minimum Entry – NCEA Level I, English, maths, physics & some understanding of computers
Welder/labourer \$14,500- \$31,200pa		Helping with welding and working with metals	On the job training, a good work history
General Labourer \$22,800- \$31,200pa		Helps trades people with their work.	On the job training, a good work history
Fitter/Welder \$13- \$35,300pa		Welding and fitting with metal	
Machinists \$13- \$35,300pa			NMIT Cert in Mechanical Engineering, or trades experience

Light fabrication or Heavy fabrication \$31,200-35,300pa		Welding and working with alloys & stainless steel	Tradespeople or Pre Apprentice 1 year employment
Maintenance and Diagnostics \$31,200-35,300pa		Working with Machinery, milling, lathe, and welding	Trade apprenticeship and relative experience
Trades Assistant \$33,200-45,800pa		Fabrication, heavy maintenance, diagnostics	
Motor Mechanic \$20,800-37,400pa	140	Works on engines and machinery	National Certificate in Auto Engineering, or Automotive Apprenticeship
Consultant Engineer \$41,200-\$70,000pa	210	Work in engineering design including boat design, building consultancy and surveying	Degree in Engineer or Naval Architect qualifications
Shipbuilding & Boat building \$16,600-35,300pa	190	Build & repair sailing, fishing, and motor boats. Also design vessels, and assist naval architects	Engineering degree, boat building apprenticeship including on the job training and study
Specialist Suppliers \$20,800+ pa	176	Sale and supply of Machinery equipment and parts	Sixth Form Certificate (NCEA Level II), NZ Cert in Engineering and an interest in mechanics. Good customer service skills
Electrical Engineers Apprentice \$25,000pa qualified \$37,400pa	24	Designing and building electrical equipment such as refrigerators, heating systems	Electrical engineering apprenticeship
Managers \$41,600-62,400pa		All aspects of staff and business management	An understanding of or experience in industry plus good management skills gained through experience or tertiary study

Some Training Pathways to Employment

- ◆ Secondary school engineering courses, or workshop technology including graphics and design, and maths.
- ◆ **NMIT** courses, e.g. **Certificate in Mechanical Engineering**, ITO: Welding or Maintenance & Diagnostic. Contact New Zealand Engineering, Food and Manufacturing Industry Training Organisation, email rossice@xtra.co.nz.
- ◆ For further information visit www.kiwicareers.govt.nz.
- ◆ Modern Apprenticeships are available in the following areas:
 - ◆ Aeronautical Engineering
 - ◆ Aluminium Joinery
 - ◆ Boat building - Design, building, manufacturing, marine sales and servicing
 - ◆ Electro-Technology - Electrical appliances, repairs and servicing. Electronic security and technology
 - ◆ Contracting - Road construction and maintenance, civil engineering, demolition, Roadings
 - ◆ Engineering - Fire protection, gunsmiths, lifts and escalators, locksmiths, plastics

Some Major Employers

AW Trinder Ltd
Brightwater Engineers Ltd
Hermes Engineering
Kernohan Engineering Ltd
Nalder and Biddle
Nelson Reliance Engineering
Sturrock and Greenwood Ltd
Topliss