

Training

A job that requires problem-so

by Angela McCarthy

Mechanical engineering apprenticeship has five strands to complete

Industries as diverse as aquaculture and dairy and pharmaceutical want good mechanical engineers to create components to further develop their technology and products.

The mechanical engineering apprenticeship has five strands: general, fitting and machining, machining, maintenance engineering and toolmaking. The general strand covers the foundations of mechanical engineering, and units offering more specialised skills and knowledge.

The general engineering strand is designed for people employed in a general engineering workshop situation doing a range of work such as fitting, machining, welding, maintenance, repair and hydraulics.

The full apprenticeship programme usually takes three to four years to complete. Units with on-job

learning are assessed on the job by a workplace or roving assessor, and other units are assessed by the provider (polytechnic) through correspondence or night classes. There are also three block courses.

The graduate

Aaron Burkhardt, 20

Stainless Design mechanical engineering apprentice

Two-and-a-half years into apprenticeship

I'm doing a general engineering apprenticeship covering fabrication and machining. Fabrication is manipulating metal which involves forming, bending assembly, welding and polishing. A lot of job planning and problem solving is involved. Nothing is routine. Accuracy and finish are really important.

I really like the combination of being in the machine shop and out on the fabrication shop floor. Recently I worked on a large project; a de-aeration filtration unit that combined all aspects of fabrication and that was



Aaron Burkhardt is specialising in fabrication and machining.

really interesting.

I did a one-year pre-trade course in machining at Wintec, then got work experience in a machining workplace, but decided I'd rather do

fabrication because I didn't enjoy spending all day in a machining environment.

I contacted Stainless Design to see if there was any work going. They

Living abilities and skill

Certificate in Mechanical

**General Engineering strand
(Level 4) Competenz, 0800 526
1800, www.competenz.org.nz or
www.atnz.org.nz**

- Entry Requirements: Prefer school leavers with maths, English, and mix of science, workshop and design technology, physics, graphics, chemistry or level 1 and level 2 engineering unit standards, or a minimum of 50 credits through pre-apprenticeship course. Opportunities for people to take up apprenticeships, School Gateway programmes also open apprenticeship options.
- Hourly rates: Around \$13 per hour, qualified \$23 upwards.
- Training costs: Sometimes shared, but usually borne by employer.
- Apprenticeship locations: country wide, dependent on need.

gave me a job in the production centre and after three months I was offered an apprenticeship. The apprenticeship includes block courses, on the job assessments and either

night classes or correspondence. I usually work 45 to 50 hours each week so I chose correspondence because I like being able to do it at home around other things. We get sent boxes with a range of booklets to work through over the year. On average each booklet takes about 10 hours. You get 12 months to finish each box – with no extensions. We are regularly assessed on-the-job.

For the first three years, we also did a one-week block course at Wintec each year, covering theory in the mornings and practical workshops in the afternoon.

This year, I entered into the regional round of the World Skills competition in light fabrication. I won and go to the nationals at the end of the month.

The manager

**Derek Pinkerton
Engineering Manager for Stainless
Design**

Stainless Design is a manufacturer for industries such as dairy, food and beverage, marine, aquaculture,

pharmaceutical and packaging.

We run a design-to-manufacture operation using leading-edge technology through our four business centres; design, fabrication, production and training. We specialise in detailed jobbing and production of precision sheet metal components, assemblies or projects.

We have 45 employed in the fabrication centre of which six or seven are apprentices.

We want apprentices with a can-do attitude, energy and enthusiasm. They need to be flexible and keen to keep up with changes in technology. You need to be proactive to stay ahead.

This company is very committed to training and developing staff and we have a dedicated fabrication trainer to support and mentor apprentices.

Annually we pay about \$1000 for block courses and another \$1000 for the assessments, as well as the indirect costs of developing and mentoring. Due to the huge learning curve involved, it takes about 18 months, depending on the individual, before we start seeing rewards.