# METAL FABRICATOR

### **EDUCATIONAL PATHWAYS**

#### **Entry Level**

Employers require applicants who have completed at least Year 10 but most prefer applicants who have successfully completed Years 11 & 12. This qualification is not suited and should not be used for people who are not employed in an engineering production or manufacturing environment. It is not suited and should not be used for school students unless they are formally engaged in a traineeship/apprenticeship in accordance with the Australian Apprenticeships policy.

#### MEM20105 - Certificate II in Engineering

This qualification covers the skills and knowledge required of workers employed as Engineering/manufacturing Employees -Level III as defined in the Manufacturing and Associated Industries and Occupations Award or in related industries where Engineering/Manufacturing Employees work. The qualification has been specifically developed to reflect the minimum training requirement specified in the Award for employment in the above occupation. The qualification packaging has been developed on an assumption that competency will be developed through a combination of on and off-the-job learning strategies such as those delivered through a formal traineeship. The qualification may also be achieved through formal skills recognition assessment processes.

#### MEM30319 - Certificate III in Engineering - Fabrication Trade

This qualification defines the skills and knowledge required of an engineering tradesperson - fabrication within metal, engineering, manufacturing and associated industries. The qualification has been specifically developed to meet the needs of apprentices in the above trade.

This qualification must be undertaken through a Training Contract or through formal trade recognition assessment processes. The skills associated with this qualification are intended to apply to a wide range of fabrication work, including undertaking metal fabrication, structural steel erection, sheet metal work, welding, blacksmithing and surface finishing. This qualification is designed to provide an industry recognised skills profile related to trade work as an Engineering Tradesperson - Fabrication.

#### MEM40119 - Certificate IV in Engineering

This qualification defines the skills and knowledge required for a higher engineering tradesperson within metal, engineering, manufacturing and associated industries. The skills associated with this qualification are intended to apply to a wide range of engineering work undertaken in the fields of refrigeration and air conditioning, casting and moulding, computer numerically controlled (CNC)

programming, fluid power, heavy fabrication, instrumentation, maintenance, plant mechanics, marine electronics, mechatronics, patternmaking, robotics, toolmaking, welding and watch and clock services and repair, including post-trade work. It provides the skills and knowledge for a person to understand and implement quality control techniques, exercise good interpersonal and communications skills, work from complex instructions and procedures, exercise discretion within the scope of responsibility, perform work under limited supervision either individually or in a team environment, be responsible for assuring the quality of their own work, provide trade guidance and assistance as part of a work team, perform non-trade tasks which are incidental or peripheral to the primary tasks and facilitate the completion of the whole task, inspect products and/or materials for conformity with established operational standards, operate lifting equipment incidental to their work and assists in the provision of training in conjunction with supervisors and trainers.

#### MEM50119 - Diploma of Engineering - Advanced Trade

This qualification defines the skills and knowledge required for employment as an Advanced Engineering Tradesperson - Level II within the metal, engineering, manufacturing and associated industries or at equivalent levels in other industries where engineering tradespersons work. The qualification has been specifically developed to meet the needs of apprentices in an engineering trade who choose to study at a higher level during their apprenticeship, or for people who are existing engineering tradespersons. This qualification may be accessed by direct entry. While there is no qualification entry requirement it is assumed that the learner is either already a tradesperson with access to structured on and off-the-job training or is an apprentice under an Australian Apprenticeship arrangement.

For further information or advise contact















# METAL FABRICATOR

### CAREER PATHWAYS/SPECIALISATIONS

Metal fabricators can go on to become specialists in any of the following areas of engineering -

#### Boilermaker-welder

Boilermakers job is to collect, introduce, keep up, and fix boilers, shut tanks, and other huge vessels or compartments that hold fluids and gases. Boilermakers may help erect and fix air contamination decrease hardware, impact heaters, water treatment plants, stockpiling and procedure tanks, and smokestacks. Boilermakers additionally introduce obstinate block and other warmth safe materials in fireboxes or pressure vessels. Some introduce and keep up the gigantic funnels utilized in dams to send water to and from hydroelectric force age turbines.

#### **Brass finisher**

A brass finisher is a specialist that works with Brass which is a very reactive metal that oxidizes quickly, and brass finish is a protective coating that can be applied to a brass product after buffing that will protect it against oxidization. Brass is an alloy made mostly from copper and zinc, but other trace metals are often added to add strength or additional resistance to corrosion.

#### Metal fabricator welder

A metal fabricator welder is a specialist welder who can work with a range of metals to construct complex projects that have been cut out and planned for them. The need to be very precise with an eyer for detail and the ability to produce a consistent product.

#### Metal template maker

Many sheet metal parts are produced using a sheet metal template. The template has settings for material thickness, bend radius, and corner relief. Sketch commands can be used to create a profile for a base face or an initial contour flange. The role of the metal template maker is to precisely measure and construct the template to ensure a consistent product results every time to ensure that it fits perfectly when constructed.

#### Structural steel trades worker

Structural and reinforcing iron and metal workers place and install iron or steel girders, columns, and other construction materials to form buildings, bridges, and other structures. They work on large projects often at heights and under various environmental conditions.

| For further information relating to this job click on the industry logo of scan the QR code. |  |  |
|--|--|--|
| GROUP  | Australian Industry Group (AiGroup)                |  |
| Australian<br>Chamber of Commerce<br>and Industry  | Australian Chamber of Commerce and Industry (ACCI) |  |
| Australian Apprenticeships Pathways  | AAP Manufacturing                                  |  |
| Weld<br>Australia  | Weld Australia – women in welding                  |  |











# METAL FABRICATOR

### HINTS ON HOW TO APPLY FOR THIS JOB

## The 11 steps below outline the process you could follow to assist you to secure an apprenticeship as a metal fabricator-

**Step 1.** identify your strengths and weaknesses, especially in maths and literacy as these are essential to being successful in an engineering career. Intermediate maths with a solid pass mark is the minimum. Additionally, subjects like technical drawing and metalwork, woodwork or engineering will give you some basic hand spatial and situational awareness skills that employers look for.

- **Step 2.** decide where you want to work; are you willing to relocate to get your dream job? There may be more opportunities in cities than in regional areas.
- **Step 3.** do some research, as to who the key employers are in the engineering industry and choose the manufacturing specialisation that you most like then make enquiries to see if they will take on apprentices.
- **Step 4**. research information about these employers or companies that you would like to work for; find out what the entry requirements or essential criteria are that must be met; such as do you need to complete an aptitude or other entry test before getting an interview?
- **Step 5.** make a shortlist of potential prospective employers to contact. You may also like to chat to your job search agent or search some of the online employment agencies such as SEEK, Jobsearch, Indeed or LinkedIn to find job vacancies for metal fabricators in your region.
- **Step 6**. create a quality resume by identifying key elements that should be included therein, and incorporate your academic achievements, experience, interests and passions.
- **Step 7.** identify and practice some interview skills with friends, parents or career advisors to learn tips on how best to perform in an interview.
- **Step 8.** contact potential employers by writing or directly calling them to demonstrate your interest and communication skills. Prospective employers highly value self-starters and prospective career aspirants with initiative who take such steps to seek for themselves employment as an apprentice.
- **Step 9.** talk with the prospective employer about the work they do and if they would be interested in taking you on as an apprentice. If you are still at school, you may be able to take up a school-based apprenticeship. There are opportunities available in some schools that allow you to take on a part-time apprenticeship known as a School-Based Apprenticeship or Traineeship (SBAT). Ask your school if they support this government initiative and ask the employer if they would be interested in such an arrangement. SBATs are a really good way to allow you to finish school and at the same time learn and earn as an apprentice.
- **Step 10**. Your employer should contact the Australian Apprenticeship Support Network (AASNs) https://www.australianapprenticeships.gov.au/ for further information on how to sign you up.
- **Step 11.** sign up to your apprenticeship with your employer (and support of your family if you are under 18 years old) to start "learning and earning" to be a metal fabricator.

For further information or advise contact







# METAL FABRICATOR

HAVE YOU CONSISDERED THESE RELATED JOBS?

Here are some other jobs that you may like to research that relate to the manufacturing industry.

- ⇒ Aircraft Maintenance Technician
- ⇒ Aircraft Maintenance Engineer
- ⇒ Laboratory Technician
- **⇒** Engineering Production Worker
- **⇒** Mechanical Fitter
- **⇒** Quality Assurance officer



For further information or advise contact mae@agrifooditab.com.au

www.uensw.com.au Email: tony@uensw.com.au







