

Fact sheet

# Metal Machinist

(First Class)

(ANZSCO: 323214)



## Job description

Metal Machinists set up and operate machine tools to shape and form metal stock and castings to fine tolerances, using detailed drawings and specifications.

Their job involves:

- » studying drawings and specifications to determine suitable material, method and sequence of operations, and machine settings
- » fitting fabricated metal parts into products and assembling metal parts and subassemblies to produce machines and equipment
- » checking fabricated and assembled metal parts for accuracy, clearance and fit using precision measuring instruments
- » setting guides, stops and other controls on machining tools, setting up prescribed cutting and shaping tools and dies in machines and presses
- » forming metal stock and castings to fine tolerances using machining tools to press, cut, grind, plane, bore and drill metal
- » diagnosing faults and performing operational maintenance of machines, and overhauling and repairing mechanical parts and fluid power equipment.

Machinists may also:

- » use NC/CNC machines
- » perform fitting operations
- » perform welding operations.

The qualification relevant to this job is [MEM30205 Certificate III in Engineering - Mechanical Trade](#).

## How will I be assessed?

### Stage 1:

We will review your training and employment evidence to ensure you have:

- » 5 years' employment experience as a Machinist (with no formal training) **OR**
- » 3 years' employment experience as a Machinist (with relevant formal training\*).

\*'Formal training' is training that aligns with the national training standards in your country of training.

Your evidence must show you have worked in your occupation for at least 12 months within the last 3 years.

[For more information on the documents required for Stage 1, see the Evidence Guide on our website.](#)

### Stage 2:

If you are successful in Stage 1, an assessor will assess you via a technical interview. The technical interview will be conducted in English and no interpreters are allowed.

[For more information on Stage 2, see the Technical Interview Guide on our website.](#)

## What skills and knowledge do I need?

To be awarded the qualification MEM30205 Certificate III in Engineering - Mechanical Trade, you must demonstrate your skill and knowledge in a selection of the following **units of competency**. Each unit of competency defines a selection of knowledge and skill required in Australian workplaces.

You must demonstrate competency in **all core** units, and demonstrate competency in additional units to a total of **at least 73 points** (the number of points relating to each unit is shown in brackets).

These units have been organised into 6 groups as follows:

### CORE UNITS

- » MEM12023A Perform engineering measurements (Core)
- » MEM12024A Perform computations (Core)
- » MEM13014A Apply principles of occupational health & safety in the work environment (Core)
- » MEM14004A Plan to undertake a routine task (Core)
- » MEM14005A Plan a complete activity (Core)
- » MEM15002A Apply quality systems (Core)
- » MEM15024A Apply quality procedures (Core)
- » MEM16006A Organise & communicate information (Core)
- » MEM16007A Work with others in a manufacturing, engineering or related environment (Core)
- » MEM16008A Interact with computing technology (Core)
- » MEM17003A Assist in the provision of on the job training (Core)
- » MSAENV272B Participate in environmentally sustainable work practices (Core)

### GENERAL OPERATIONS

- » MEM05005B Carry out mechanical cutting\* (2)
- » MEM07001B Perform operational maintenance of machines/equipment\* (2)
- » MEM09002B Interpret technical drawing (4)
- » MEM11010B Operate mobile load shifting equipment (4)
- » MEM11011B Undertake manual handling (2)
- » MEM12001B Use comparison and basic measuring devices (2)
- » MEM12003B Perform precision mechanical measurements\* (2)
- » MEM12006C Mark off/out general engineering\* (4)
- » MEM13003B Work safely with industrial chemicals & materials (2)
- » MEM18001C Use hand tools (2)
- » MEM18002B Use power tools/hand held operations (2)
- » MEM18003C Use tools for precision work\* (4)
- » MEM18011C Shut down & isolate machines / equipment (2)

### MACHINING OPERATIONS

- » MEM07003B Perform machine setting routine\* (4)
- » MEM07005C Perform general machining\* (8)
- » MEM07006C Perform lathe operations\* (4)
- » MEM07007C Perform milling operations\* (4)
- » MEM07008D Perform grinding operations\* (4)
- » MEM07024B Operate and monitor machine / process (4)
- » MEM07029B Perform routine sharpening / maintenance of production tool and cutters\* (4)



## ELECTIVES

You are required to provide evidence of your skills, knowledge and experience in at least **ONE** of the following elective areas as part of the assessment process.

### NC/CNC MACHINING

- » MEM07015B Set computer controlled machines/processes\* (2)
- » MEM07016C Set and edit computer controlled machines/processes\* (4)
- » MEM07018C Write basic NC/CNC programs\* (4)
- » MEM07019C Program NC/CNC machining centre\* (2)
- » MEM07028B Operate computer controlled machines / process\* (2)

### ENGINEERING OPERATIONS

- » MEM18055B Dismantle, replace and assemble engineering components\* (3)
- » MEM18010C Perform equipment condition monitoring and recording\* (4)
- » MEM18006C Repair and fit engineering components\* (6)
- » MEM18005B Perform fault diagnosis, installation and removal of bearings\* (4)

### WELDING

- » MEM05007C Perform manual heating and thermal cutting (2)
- » MEM05008C Perform advanced manual thermal cutting, gouging and shaping\* (2)
- » MEM05012C Perform routine manual arc welding (2)
- » MEM05049B Perform routine gas tungsten arc welding (2)
- » MEM05050B Perform routine gas metal arc welding (2)
- » MEM05051A Select welding processes (2)
- » MEM05052A Apply safe welding practices (4)

**NOTE:** \* indicates that a unit requires a pre-requisite/s.





## How do I find out more about each unit of competency?

You are **strongly encouraged** to review each of the units of competency shown above. To do this:

1. Go to the following website: <http://training.gov.au/Search/Training>
2. Enter a unit code (e.g. MEM12023A) into the 'Title or code' search box
3. Tick the 'Units of competency' check box
4. Select the 'Search' button
5. Select the unit from the search results
6. Read the Unit of Competency information

## What will I receive after the assessment?

If you **successfully** complete Stage 2 you will receive:

- » an Australian Certificate III qualification and a Statement of Results
- » a migration outcome letter if the assessment is to support your visa application.

If you are **unsuccessful** in Stage 2 you will be receive:

- » a Statement of Attainment that lists the units of competency you successfully achieved
- » a Statement of Results that lists units of competency you have successfully achieved and those that were not achieved.

## Where can I find more information?

Please refer to our website: <http://www.vetassess.com.au/skills-assessment-for-migration/trade-occupations>

If you have further questions, contact us at:

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