



Australian Government

MEMPE001 Use engineering workshop machines

Release: 1

MEMPE001 Use engineering workshop machines

Modification History

Release 1. Supersedes and is equivalent to MEMPE001A Use engineering workshop machines.

Application

This unit of competency defines the skills and knowledge required to set up machine components using appropriate machines. Tooling might need to be re-sharpened but not ground up from a blank. The setting for the machines are calculated by the individual from given formulas, surface speeds and feed rates.

This unit describes entry-level skills and knowledge in preparation for employment within the metal, engineering, manufacturing and associated industries and is suitable for use in institutional-based vocational programs. Skills development takes place under direct supervision.

It is not to be used in a traineeship or apprenticeship training program or associated qualifications. It is only to be used in employment preparation programs and carries no direct credit towards apprenticeship/trade and other qualification types in manufacturing and engineering.

This skills in this unit are intended to be developed in combination with the project unit, MEMPE006 Undertake a basic engineering project.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Pre-employment

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare a job plan	1.1 Comply with work health and safety (WHS) requirements at all times 1.2 Identify job requirements from work information in consultation

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
	with a supervisor 1.3 Identify appropriate machines in accordance with job requirements 1.4 Identify appropriate tooling in accordance with job requirements 1.5 Calculate cutting speeds and feeds 1.6 Prepare a job plan showing machines, tooling, cutting speeds and feeds and an appropriate sequence of operations 1.7 Confirm plan with a supervisor
2. Prepare for machining	2.1 Obtain appropriate tooling and materials 2.2 Set up tools and materials to meet job requirements 2.3 Set required speeds and feeds
3. Perform machining	3.1 Use and wear appropriate personal protective equipment (PPE) in accordance with procedures 3.2 Follow safe machining practices 3.3 Machine materials to job requirements 3.4 Use measuring equipment 3.5 Store completed work in a manner which will prevent/minimise potential damage
4. Complete work requirements	4.1 Clear work area of waste and clean according to requirements 4.2 Maintain and/or store machines, tools and equipment according to instructions

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance.

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the

candidate, accessibility of the item, and local industry and regional contexts) are included.	
Appropriate machines includes two or more of the following:	• lathes • milling machines • cut off saws • pedestal grinders • fixed position drilling machines • computer-controlled machines.
Work information includes one or more of the following:	• drawings • sketches • job instructions • schematics • diagrams • technical manuals.
Measuring equipment includes one or more of the following:	• micrometers • vernier scaled measuring devices • rules • calipers • gauges.

Unit Mapping Information

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Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b7050d37-5fd0-4740-8f7d-3b7a49c10bb2>