



Australian Government

MSTTF2006 Measure and scale geometric shapes

Release: 1

MSTTF2006 Measure and scale geometric shapes

Modification History

Release 1. Supersedes and is equivalent to LMTTF2006A Measure and scale geometric shapes

Application

This unit of competency covers the skills and knowledge required to take accurate measurements and related information from customer information or actual objects or structures.

The unit of competency applies to taking accurate measurements, scaling shapes and applying related information using manual processes.

It may involve interaction with enterprise clients either individually or in collaboration with other personnel from the enterprise. Work may be conducted in operational indoor or outdoor workplaces

Work may be conducted in small to large scale enterprises and may involve individual and team activities. Work is performed within defined procedures may require the exercise of discretion and judgement.

This unit may be assessed independently or in combination with other relevant units.

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

Pre-requisite Unit

MSTTF2005 Translate information into measurements or diagrams

Competency Field

Textile fabrication

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1	Interpret information	1.1	Interpret drawings, sketches or diagrams provided by customer
		1.2	Read and apply workplace procedures and instructions
		1.3	Read established dimensions from supplied drawings or other information
		1.4	Consult customer to identify missing dimensions or other unknown aspects of the product
		1.5	Scale drawings or diagrams where necessary to obtain dimensions needed for production
		1.6	Select appropriate tools, equipment and resources
2	Obtain relevant dimensions from physical objects	2.1	Use manual measuring and scaling techniques
		2.2	Measure and record physical dimensions from buildings, architectural structures, vehicles, caravans, or marine craft, as appropriate
		2.3	Calculate or otherwise determine and record angles for future reference
		2.4	Identify and determine geometric shapes, establish positions of clear panels and record relevant information
		2.5	Apply work health and safety (WHS) practices during the gathering of measurements both on and off site
3	Record and communicate data	3.1	Record and store data using established workplace format and documentation
		3.2	Pass on data and associated information to personnel responsible for further action within the organisation

Foundation Skills

This section describes those required skills (language, literacy and numeracy) 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.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- standard operating procedures (SOPs)
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Tools, equipment and resources include one or more of the following:

- measuring equipment
- rules
- squares
- protractors
- calculators

WHS practices

WHS practices include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and include one or more of the following:

- manual handling techniques
- SOPs
- personal protective equipment (PPE)
- safe materials handling
- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents

- environmental practices

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTF2006A Measure and scale geometric shapes

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTTF2006 Measure and scale geometric shapes

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Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures and safe work practices and other reference material
- applying relevant standards
- conceptualising customer needs from customer information
- interpreting and using information from diagrams and drawings, and taking accurate measurements
- calculating surface areas and calculating measurements and scaling dimensions
- documenting and communicating measurements
- accurately calculating lengths subtended by angles
- accurately calculating angles and scaling drawings to obtain dimensions
- using manual measuring and scaling techniques for at least two (2) objects or structures with different geometrical shapes
- establishing positions of clear panels
- applying workplace procedures.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- range of products and services offered by the workplace
- operating principles of products and equipment on offer
- common types of materials used in the industry and their applications
- manual measuring and scaling techniques
- properties of canvas and textile materials used in the industry
- measuring instruments and techniques and scaling process
- mathematical processes and formulae for area and volume
- plane geometry and plane geometrical shapes
- meaning of engineering drawing symbols
- product construction processes commonly used in the industry
- quality practices

- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in measuring and scaling geometric shapes, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.
- This unit may be assessed independently or in combination with other relevant units, for example *MSTTF2005 Translate information into measurements or diagrams*.

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