



Australian Government

MSTTF2022 Weld plastic materials

Release: 1

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Modification History

Release 1. Merges MSTTF2014 and MSTTF3004 to incorporate high-frequency welding as a welding type. Unit code and Application changed. Elements and Performance Criteria simplified with Element 1 and 2 combined. Foundation Skills field populated. Range of Conditions removed with relevant information moved to Knowledge Evidence. Assessment Requirements clarified with generic foundation skills statements moved to appropriate section and duplication with Performance Criteria removed. Supersedes and is not equivalent to MSTTF2014 Weld plastic materials and MSTTF3004 Perform advanced welding of plastic materials.

Application

This unit describes the skills and knowledge required to select the appropriate welding process and safely operate equipment to weld plastic materials. Welding processes may include hot air, hot wedge or high frequency welding.

This unit applies to individuals working in accordance with pre-determined specifications and established procedures.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Competency Field

Textile fabrication

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Select welding process and plan work	1.1 Identify job requirements and material specifications from work documentation 1.2 Select an appropriate welding process based on specifications 1.3 Identify and comply with work health and safety requirements and personal protection requirements for welding activity 1.4 Identify suitable electrical power outlets and plan work to maximise safety and productivity 1.5 Select appropriate welding equipment, confirm serviceability and follow correct 'on' procedures 1.6 Select and prepare appropriate ancillary hand and power tools

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	required for the job
2. Perform welding	2.1 Prepare surfaces of material to standard required for welding to commence 2.2 Lay out material on working table or other suitable surface and anchor material to prevent movement 2.3 Adjust equipment temperature to prescribed settings 2.4 Lower any fitted screens or barriers prior to welding process 2.5 Operate welding equipment in accordance with manufacturer instructions and workplace procedures 2.6 Examine weld area, test for correct fusion of materials, and remove work piece
3. Check quality of weld and finalise work	3.1 Inspect completed weld for compliance with specifications and quality standards, and rectify any identified deficiencies 3.2 Label or tag welded item and complete required documentation in accordance with workplace procedures 3.3 Clean tools and equipment and complete routine operator maintenance in accordance with workplace procedures and manufacturer instructions 3.4 Store tools and equipment based on specific storage needs and workplace requirements

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance but not explicit in the performance criteria.

- Reading skills to interpret familiar workplace procedures and work documentation
- Writing skills to communicate factual information in familiar workplace documents

Other foundation skills essential to performance are explicit in the performance criteria of this unit.

Unit Mapping Information

No equivalent unit.

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 MSTTF2022 Weld plastic materials

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- safely set up and operate welding equipment and complete at least two types of welding on plastic materials to workplace quality standards, with each type of weld process to be used on at least five occasions
- perform routine operator maintenance of welding equipment at least once.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- safe work practices and procedures for plastics welding:
 - use of personal protective equipment (PPE)
 - specific requirements associated with different types of welding
 - hazards associated with heated plastics and control measures
 - basic characteristics and safety requirements associated with power sources, such as single phase, three phase and weather-protected outlets
- existence of any Australian Standards requirements for materials or products being welded
- plastic welding processes and techniques:
 - general operating principles of equipment
 - types, characteristics, uses and limitations of plastic welding equipment and their appropriateness for particular applications:
 - foot controlled welder
 - hand welder
 - hot air welder
 - hot wedge welder
 - high-frequency welder
 - types of materials to be welded and their features – PVC, vinyl, clear plastics
 - ancillary hand tools and power tools commonly used in the plastic welding process

- quality standards for completed welds
- environmental protection and sustainability requirements
- workplace procedures for recording and reporting information.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies. The following conditions must be met for this unit:

- use of suitable facilities, equipment and resources, including:
 - work documentation
 - items to be welded
 - plastics welding equipment
 - workplace procedures.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

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