



Australian Government

Assessment Requirements for MEM18097 Manufacture cavity dies

Release: 2

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Modification History

Release 2. Quantum of hours of workplace practice removed. Supersedes and is equivalent to MEM18097 Manufacture cavity dies (Release 1).

Release 1. Supersedes and is equivalent to MEM18097A Manufacture cavity dies.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- identifying and interpreting drawings, prints and/or sample components, specifications and customer requirements with respect to manufacturing cavity dies
- sketching or drawing the tooling design incorporating mounting requirements into tooling design and planning with reference to customer specifications for numbers, finish, quality and materials
- selecting and obtaining appropriate materials to meet tooling requirements and testing for hardness using appropriate hardness tester ensuring rating meets customers specifications
- shaping/producing tooling components to specifications using appropriate machines and machining processes
- fashioning/manufacturing tooling components using hand and hand held power tools to specifications
- assembling and fitting tooling components using acceptable tool making techniques and procedures
- producing first-off component/product and checking for conformance, trialling and modifying, where necessary, to meet specifications and verifying conformance
- recording/reporting modifications or alterations to original tooling design in accordance with SOPs.

Knowledge Evidence

Evidence required to demonstrate the required knowledge for this unit must be relevant to and satisfy the requirements of the elements and performance criteria and include knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- customers' tooling requirements and the type of tooling to be manufactured
- machine(s) in which the tooling is to be used
- tooling design concept and performance requirements in terms of customer specifications and proposed production machine(s)

- method of mounting the tooling in the production machine into which it is to be installed
- physical properties of a range of tool steels
- appropriate materials for each component of the tooling to be produced and reasons for selecting the chosen materials in terms of strength, durability, component finish, heat treatment requirements and availability
- procedures for hardness testing of materials
- tools, equipment, techniques and procedures for fitting/assembling the tooling components
- effect of material hardness on machinability of the material
- appropriate machinery and tools to be used to fashion or shape tooling components and reasons for selection
- procedures for documenting plans for the manufacture of tooling
- reasons for establishing a sequential plan for the manufacture of tooling
- hand and hand held power tools to be used to fashion/manufacture the required tooling components and reasons for selection
- precautions to be taken when fitting/assembling tooling components
- appropriate precision instruments for checking the components produced
- specifications of the finished product and causes of any non-conformance to specification
- tool making techniques/procedures to be applied to return the tooling to specification
- procedures for recording/reporting modifications and/or alterations to tooling design
- procedures for reporting/recording the conformance of the component/product produced by the tooling to specifications.

Assessment Conditions

- Assessors must:
 - have vocational competency in manufacturing cavity dies at least to the level being assessed with relevant industry knowledge and experience
 - satisfy the assessor requirements in the *Standards for Registered Training Organisations 2015* or its replacement and comply with the *National Vocational Education and Training Regulator Act 2011*, its replacement or equivalent legislation covering VET regulation in a non-referring state/territory as the case requires.
- Assessment must occur in a functioning workplace. Where assessment in the workplace would be unsafe, impractical or threatens the environment, assessment must occur in a sufficiently rigorous simulated environment that reflects the circumstances that would be experienced in a functioning workplace. Assessment must cover all aspects of workplace performance, including task skills, task management skills, contingency management skills and job role environment skills.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications.
- 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.

Links

Companion Volume implementation guides are found in VETNet -

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