



Australian Government

MEM21004 Clean watch and clock components

Release: 1

MEM21004 Clean watch and clock components

Modification History

Release 1. Supersedes and is equivalent to MEM21004A Clean watch and clock components

Application

This unit of competency defines the skills and knowledge required to apply cleaning techniques for watch and clock movements, cases and other components by manual, mechanical and electronic methods, using a range of media.

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

Band: A

Unit weight: 2

Pre-requisite Unit

MEM13015 Work safely and effectively in manufacturing and engineering

MEM16006 Organise and communicate information

Competency Field

Horology

Elements and Performance Criteria

Elements describe the essential outcomes.

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

1	Determine job requirements	1.1	Follow standard operating procedures (SOPs)
		1.2	Comply with work health and safety (WHS) requirements at all times
		1.3	Identify job requirements from specifications, job sheets or work instructions
2	Apply principles of WHS to	2.1	Select and use appropriate personal protective equipment (PPE) based on information in relevant safety data sheet

Elements describe the essential outcomes.		Performance criteria describe the performance needed to demonstrate achievement of the element.	
	cleaning activities	(SDS)	
		2.2	Identify hazards associated with cleaning equipment and media
		2.3	Follow emergency response procedures
3	Select and prepare appropriate methods, equipment and solutions	3.1	Select cleaning methods, processes and equipment according to type and size of mechanisms, components and cases
		3.2	Select cleaning solutions appropriate to component, finish, surface coating and material
		3.3	Decant, mix and prepare solutions for use
		3.4	Dispose of chemicals according to manufacturer guidelines, legislation and regulations
4	Prepare parts and components for cleaning	4.1	Dismantle watch or clock and component parts to optimise cleaning
		4.2	Pre-clean components, as required, for inspection
		4.3	Arrange components during machine cleaning to prevent damage
		4.4	Arrange and sequence parts and components for cleaning to assist subsequent identification, reassembly and to optimise cleaning
5	Perform cleaning operations	5.1	Set up and operate cleaning equipment using correct and safe work practices
		5.2	Monitor and control exposure of components to solutions during cleaning process
		5.3	Remove residues, dry and handle cleaned components, as appropriate
		5.4	Arrange storage of cleaned components to maintain

Elements describe the essential outcomes.

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

finish and cleanliness

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| 6 | Assess outcomes of cleaning process | 6.1 | Verify condition of cleaned components and identify remaining residues and contaminants, damage to surface coatings and other component damage |
| | | 6.2 | Account for all components |

Foundation Skills

This section describes those required skills (reading, writing, oral communication and numeracy) that are essential to workplace performance in this unit of competency.

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.

PPE includes one (1) or more of the following:

- protective masks
- gloves for handling chemicals
- fire blankets and extinguishers
- ventilation of cleaning area
- clothing (dustcoats and aprons)

Emergency response procedures include one (1) or more of the following:

- safe selection and use of fire extinguishers
- use of safety blankets and other methods of suppressing solvent-based fires
- emergency treatment of eye splashes and chemical burns
- emergency treatment of chemical inhalation and absorption

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Cleaning methods, processes and equipment include one (1) or more of the following:

- rotational mechanical processes
- vibrational mechanical processes
- electronic (ultrasonic)
- steam cleaning
- cleaning machines
- cleaning baskets
- hand cleaning

Cleaning solutions include one (1) or more of the following:

- number 1 degreasing and cleaning solution (WF1)
- customised solutions
- ammonia
- oleic acid
- acetone
- water-based solutions
- commercial grade ammonia concentrates
- rinsing solutions
- hydrocarbon solvents

Unit Mapping Information

Release 1. Supersedes and is equivalent to MEM21004A Clean watch and clock components

Links

Companion Volume implementation guides are found in VETNet -

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

Assessment Requirements for MEM21004 Clean watch and clock components

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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 on at least two (2) occasions and include:

- following work instructions, standard operating procedures (SOPs) and safe work practices
- selecting appropriate cleaning methods, processes and equipment appropriate to the work being carried out
- selecting cleaning solutions appropriate to component, finish, surface coating and material
- working safely with chemicals and equipment based on information in relevant safety data sheet (SDS)
- sorting and tracking components during cleaning process
- cleaning components without damage and verifying components have been effectively cleaned
- following emergency response procedures, as required.

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)
- cleaning solutions and uses
- cleaning procedures for different components and finishes
- watch case cleaning methods (ultrasonic and vibratory)
- cleaning machine types, uses, function and operation
- potential for damage to components by chemicals or cleaning operations
- chemical storage and disposal.

Assessment Conditions

- Assessors must:
 - have vocational competency in cleaning watch and clock components 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
- Where possible assessment must 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 that reflects 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
- 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.

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