



Australian Government

**Assessment Requirements for MEM18096
Maintain, repair/replace and adjust
refrigerant flow controls and associated
equipment**

Release: 1

Assessment Requirements for MEM18096 Maintain, repair/replace and adjust refrigerant flow controls and associated equipment

Modification History

Release 1. Supersedes and is equivalent to MEM18096A Maintain, repair/replace and adjust refrigerant flow controls and associated equipment

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 charts, lists, catalogues, specifications and relevant legislation with respect to maintaining, repairing/replacing and adjusting refrigerant flow controls and associated equipment
- selecting and using appropriate tools, techniques and test equipment necessary to inspect, test and assess the operational function of the flow control valves and components for correct operation and conformance against specifications
- removing the refrigerant from the system and containing in accordance with procedures and regulatory requirements
- identifying and localising faulty components and confirming malfunction by inspection/testing, and making required adjustments to achieve specifications
- removing/dismantling and reassembling faulty components and selecting replacement parts from manufacturers' catalogues to meet the required specifications
- undertaking calculations and numerical operations associated with maintaining, repairing/replacing and adjusting refrigerant flow controls and associated equipment
- evacuating the system and recharging with refrigerant, and leak testing system and adjusting flow control to manufacturers' specifications in accordance with refrigerant principles and procedures
- undertaking performance check to meet specifications
- completing all maintenance records/reports 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)
- operation of refrigerant flow controls, including:
 - Thermal Expansion Valve (TEV)

- internal equalised
- external equalised
- direct operating
- servo operated
- pilot operated
- Maximum Operating Pressures (MOP), cross charged, gas charged, capillary tube, thermo electric, electronic TEV and controllers, low side floats, high side floats, distributors, reversing valves, solenoid valves, non-return valves, evaporator pressure regulators (EPR) valves, crankcase pressure regulating (CPR) refrigeration valves, condenser bypass valves, liquid level controllers, AX valves and hand expansion valves
- measuring instruments/equipment, specifications and procedures for checking temperature(s)
- measuring instruments/equipment, specifications and procedures for checking components
- tools, equipment, techniques and procedures for performing preventative maintenance and sequence of implementation
- procedures for identifying refrigerant type and safely removing the refrigerant and charging the system including all legislative and regulatory requirements
- tools, equipment, techniques and procedures for dismantling, repairing, reassembling and testing components
- process for selecting replacement parts
- specifications, operational characteristics and process for identifying system components
- procedures for reporting non-conformances and completing maintenance records/service reports.

Assessment Conditions

- Assessors must:
 - have vocational competency in maintaining, repairing/replacing and adjusting refrigerant flow controls and associated equipment 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.

Links

Companion Volume implementation guides are found in VETNet -

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