



Australian Government

UEERA0062 Recover and charge refrigerants

Release: 1

UEERA0062 Recover and charge refrigerants

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to recover, pressure test, evacuate and charge refrigerants from refrigeration and air conditioning systems.

It includes recovering refrigerants, pressure testing, evacuating, charging refrigerants into refrigeration systems and completing documentation.

The skills and knowledge in this unit will be applied by refrigeration and air conditioning technicians during the recovery and charging of refrigerants on refrigeration and air conditioning systems.

To undertake this unit, the learner must have a current Trainee Refrigerant Handling Licence as it includes work on refrigeration and air conditioning equipment that carries the risk of a fluorocarbon refrigerant being emitted.

The skills and knowledge described in this unit require a national Refrigerant Handling Licence as it includes work on refrigeration and air conditioning equipment that carries the risk of a fluorocarbon refrigerant being emitted while decanting the refrigerant or manufacturing, installing, commissioning, servicing, maintaining or decommissioning refrigeration and air conditioning equipment.

Additional and/or other conditions may apply in some jurisdictions subject to regulations related to refrigeration, air conditioning and electrical work. Practice in the workplace and during training is also subject to work health and safety (WHS)/occupational health and safety (OHS) regulations.

Pre-requisite Unit

UEECD0007 Apply work health and safety regulations, codes and practices in the workplace

Competency Field

Refrigeration and air-conditioning

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

1 Prepare to recover and charge refrigerant

2 Recover and charge refrigerant

PERFORMANCE CRITERIA

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

- 1.1** WHS/OHS hazards, risk control methods, relevant industry standards, codes of practice and legislation are obtained and applied in accordance with workplace procedures
- 1.2** Work details are determined from documentation and/or supervisor to establish scope of work to be completed in accordance with workplace procedures
- 1.3** Work tasks are sequenced in accordance with job schedule and workplace procedures
- 1.4** Supervisor is consulted to ensure work is coordinated with others in accordance with workplace procedures
- 1.5** Tools, equipment and testing devices to complete the work are obtained and checked for operational safety in accordance with workplace procedures
- 2.1** Refrigerant is removed from a functional refrigeration and/or air conditioning system safely, using appropriate recovery and/or reclaim equipment, and is placed into labelled containers in accordance with relevant codes of practice, regulatory requirements and industry standards
- 2.2** Pressure testing is conducted in accordance with relevant codes and standards at a pressure compatible with the type of refrigerant employed in the system and without damage to components in accordance with workplace procedures and industry standards
- 2.3** Leaks are located and rectified using testing methods appropriate to functional refrigeration and/or air conditioning system under test in accordance with relevant codes of practice, regulatory requirements and industry standards
- 2.4** Functional refrigeration and/or air conditioning system is evacuated to required level and cleaned of all moisture and other contaminants in accordance with relevant codes of practice, regulatory requirements and industry standards

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| | 2.5 | Functional refrigeration and/or air conditioning system is charged with appropriate refrigerant in accordance with relevant standards, codes of practice, regulatory requirements and manufacturer specifications |
| | 2.6 | Problematic situations are resolved in accordance with workplace procedures |
| | 2.7 | Functional refrigeration and/or air conditioning system is pressure and leak tested, evacuated and charged without waste of materials, damage to apparatus, the surrounding environment and/or services using relevant sustainable energy practices in accordance with workplace procedures and industry standards |
| 3 Complete and report refrigerant recovery and charging | 3.1 | WHS/OHS work completion risk control measures are applied in accordance with workplace procedures |
| | 3.2 | Worksite and equipment are cleaned and made safe in accordance with workplace procedures |
| | 3.3 | Recovered and/or reclaimed refrigerant and lubricant are dealt with in accordance with relevant industry standards, codes of practice and regulatory requirements |
| | 3.4 | Completion of work is documented in an auditable logbook and supervisor notified in accordance with workplace procedures |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide

Unit Mapping Information

No equivalent unit.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEERA0062 Recover and charge refrigerants

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Performance Evidence

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

- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements, including using risk control measures
- charging the system with the correct type and quantity of refrigerant
- completing necessary documentation
- documenting work, including refrigerant usage and removal
- evacuating a system to required level
- following manufacturer specifications and manuals
- implementing relevant legislation, industry standards, codes of practice and regulations
- performing a vacuum test
- pressure testing a system to design conditions
- recovering refrigerant from a system
- testing the system for leaks and rectifying as necessary.

Knowledge Evidence

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

- evacuation and dehydration, including vacuum pump types, use and care, suitable vacuum measuring instruments, drop testing and evacuation methods, including triple and deep
- pressure testing, including suitable gases, test values in accordance with standards and safe working procedures
- refrigerant charging procedures and methods, including vapour and liquid
- refrigerant recovery, including pump types, procedures for vapour and liquid recovery, disposal of recovered refrigerant and safety issues
- relevant legislation, industry standards, codes of practice and regulations.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in simulated workplace operational situations that replicate workplace conditions.

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.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and personal protective equipment (PPE) currently used in industry
- applicable documentation, including workplace procedures, industry standards, equipment specifications, regulations, codes of practice and operation manuals.

Links

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