



FY1P 04 – Maintain Air Conditioning Systems and Components

This Unit comprises of the following combinations of National Occupational Standards (NOS) shown below by award it appears in.

SUMMES12

Service and maintain mechanical systems, equipment and components



Overview

This unit is about what is required to service and maintain a range of systems and components in order to satisfy industry requirements.

The person carrying out this work must be able to undertake servicing of appliances for the different systems

They are expected to establish the service and maintenance requirements for the systems and components and carry out service and maintenance of systems and components.

They must be able to service and maintain a range of systems and components, follow instructions and job information, and complete accurate service and maintenance records and schedules.

SUMMES12

Service and maintain mechanical systems, equipment and components

Performance criteria

You must be able to:

- P1 carry out service and maintenance activities using procedures which comply with industry requirements
- P2 service and maintain system components to ensure continued effective operation of the system
- P3 complete records to provide an accurate history of the service and maintenance of system components

SUMMES12

Service and maintain mechanical systems, equipment and components

Knowledge and understanding

You need to know and understand:

- K1 how to use performance specifications for systems and components, and maintenance procedures necessary to restore or maintain the continued performance of systems and components
- K2 the maintenance procedures necessary to ensure compliance with industry requirements for routine and non-routine service and maintenance activities
- K3 how to complete records and reports of the maintenance of systems and components
- K4 the action to take when the system or component does not work to full performance specification

SUMMES12

Service and maintain mechanical systems, equipment and components

Developed by SummitSkills

Version number 1

Date approved October 2008

Indicative review date October 2010

Validity Current

Status Original

Originating organisation SummitSkills

Original URN M12

Relevant occupations Building and construction; Skilled Trades Occupations

Suite Mechanical Engineering Services

Key words Servicing of appliances for different systems

SUMMES17

Service and maintain cooling systems, equipment and components



Overview

This unit is about carrying both planned maintenance and breakdown service. It involves carrying out the work in a variety of contexts and taking on site decisions. In some situations the person carrying out the work will be responsible for the work of others.

SUMMES17

Service and maintain cooling systems, equipment and components

Performance criteria

- You must be able to:*
- P1 confirm that the information necessary to service and maintain systems and components is available, read and understood
 - P2 identify the activities that make up the maintenance schedule for the systems and components
 - P3 plan service and maintenance work on the systems and components to minimise the disruption of system operation
 - P4 confirm that all materials, tools and equipment necessary for the service and maintenance activities will be available as required
 - P5 liaise with other persons at appropriate points within the maintenance activities to minimise disruption to work routines
 - P6 confirm that maintenance activities comply with industry requirements and use procedures in line with these requirements
 - P7 carry out a visual and manual inspection of the system in accordance with relevant
 - P8 examine equipment records to check for leakage and identify relevant information on any repeating or problem areas
 - P9 use tables and diagrams to monitor the performance of the system and check for indirect leaks
 - P10 identify any problems in the functioning of the equipment that could damage the system or lead to refrigerant leakage, should no action be taken
 - P11 service and maintain system and components to ensure continued effective operation of the system
 - P12 adjust, as appropriate, safety and control features
 - P13 complete records to provide an accurate history of the service and maintenance of system components

SUMMES17

Service and maintain cooling systems, equipment and components

Knowledge and understanding

You need to know and understand:

- K1 the range of information that should be available on the routine and non-routine service and maintenance requirements of systems and components
- K2 the basic operation of the system and equipment and the risks of leakage associated with it
- K3 The potential leakage points in systems equipment
- K4 the function and operation of the main components in the system and their role and importance for refrigeration leakage prevention and identification
- K5 basic ISO standards relevant to the system or installation
- K6 basic theory of refrigeration and/or air conditioning systems including thermodynamics
- K7 the requirements of EU and UK regulation concerning refrigeration and air conditioning, such as F Gas
- K8 the service and maintenance procedures across the range of systems and components
- K9 how to plan service and maintenance procedures to minimise interference with system operation and customer routines
- K10 how and when to liaise with others during service and maintenance activities
- K11 the materials required for routine maintenance and the sources of information on the materials required for structured servicing operations
- K12 the tools and equipment required for routine maintenance and structured servicing operations
- K13 how to use performance specifications for systems and components and the service and maintenance procedures necessary to restore or maintain the continued performance of systems and components
- K14 the service and maintenance procedures necessary to ensure compliance with industry requirements for routine and non-routine service and maintenance activities
- K15 how to complete records and reports on the service and maintenance of systems and components
- K16 the action to take when the system or component does not work to full performance specification

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Suite Mechanical Engineering Services

Key words inspect, monitor, adjust, record
