

## Modification history

Release	Comments
Release 1	This version released with AHC Agriculture, Horticulture and Conservation and Land Management Training Package Version 6.0.

AHCMKH4XX	Service and repair milking equipment
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to service, repair and maintain components of milking equipment used on dairy farms.</p> <p>This unit applies to technicians who service and repair milking machine components for a dairy facility.</p> <p>All work is carried out to comply with workplace policies and procedures, according to state/territory work health and safety, animal welfare, environmental and biosecurity legislation, regulations and standards that apply to the workplace.</p> <p>No licensing, legislative or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Milk Harvesting (MKH)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Prepare for service and repair of milking equipment	1.1 Identify service and repair requirements with facility personnel 1.2 Identify work health and safety hazards, assess risks and determine control measures 1.3 Select tools and equipment for tasks and check for serviceability 1.4 Prepare and fit required personal protective equipment
2. Service and repair vacuum system	2.1 Measure vacuum pump capacity and assess performance against manufacturer design parameters and shed requirements 2.2 Disassemble, service and reassemble vacuum pump 2.3 Check and repair vacuum pump exhaust and housing to minimise noise and ensure levels remain within prescribed standards 2.4 Check regulator performance, clean filters and replace parts as required
3. Service pulsators and electronic systems	3.1 Assess pulsator performance during milking and as part of mechanical testing 3.2 Remove and repair or replace electronic or pneumatic pulsators 3.3 Test and replace extra low voltage segments of pulsation and wash systems controllers
4. Service and repair milk pumps and releasing system	4.1 Check pumping performance of milk pumps 4.2 Disassemble and repair milk pumps, drives and couplings 4.3 Inspect milk releaser and replace rubber seals and flaps 4.4 Check and adjust speed settings of variable speed milk pump controllers

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
5. Repair and maintain milk transport system	5.1 Inspect rubberware and teat cup liner for correct specification and replace or adjust as required 5.2 Inspect claws and claw bowls for cleanliness and assess connection to suit specific pulsation system 5.3 Assess operation of automatic vacuum cut-off in the claw, if fitted, and clean air admission holes 5.4 Inspect milk lines and air lines and check joins to comply with industry standards 5.5 Check cans and vessels for dents and damage and shut off valves for standard operation 5.6 Disassemble, clean and re- assemble plate cooler, and clean and replace filters
6. Service and repair non-milking systems	6.1 Inspect jettors and cleaning system to ensure adequate air admission during cleaning and correct water volumes are circulating 6.2 Repair or replace cleaning system components as required 6.3 Check automatic cup removers to ensure that airflows are clean and effective and that retract cylinders operate effectively 6.4 Repair or replace automatic cup removers as required 6.5 Inspect and repair or maintain feed systems
7. Complete post servicing and repair activities	7.1 Clear and clean work area and tools and equipment 7.2 Dispose of waste according to workplace and environmental requirements 7.3 Complete servicing and repair documentation according to workplace requirements

Foundation Skills	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
Skill	Description
Reading	<ul style="list-style-type: none"> <li>Interpret key information from a range of documentation</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Use open-ended questioning and active listening to gather information and confirm work requirements</li> <li>Use clear language and industry terminology when describing faults and service requirements</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Complete records using clear language and industry terminology</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret numerical information in manufacturer specifications and other documentation</li> </ul>

Unit Mapping Information			
Code and title current version	Code and title previous version	Comments	Equivalence status
AHCMKH4XX Service and repair milking equipment	AHCMKH303 Service and repair milking equipment	Elements added. Changes to elements, performance criteria, performance and knowledge evidence for clarity. Foundation skills added. Assessment conditions expanded	Not equivalent

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72</a>
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<b>TITLE</b>	<b>Assessment requirements for AHCMKH4XX Service and repair milking equipment</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit.</p> <p>There must be evidence that the individual has carried out service, repair and maintenance of each the following milking equipment components:</p> <ul style="list-style-type: none"> <li>• vacuum pumps and the vacuum regulator</li> <li>• pulsators and pulsation control system</li> <li>• milk pumps and the milk releasing system</li> <li>• milk transport system</li> <li>• non-milking system.</li> </ul> <p>In completing the above, the individual also have evidence that they have:</p> <ul style="list-style-type: none"> <li>• applied work health and safety requirements</li> <li>• used the required inspection and testing methods for the component being serviced.</li> </ul>	
<b>Knowledge Evidence</b>	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• types, functions, cleaning, monitoring and maintenance of milking machines and components</li> <li>• criteria and methods for assessing optimal performance of milking machines and their components</li> <li>• possible faults, problems and poor performance with milking machines and their components, impacts on milking operations and corrective actions for these faults and problems</li> <li>• types, functions, cleaning, monitoring and maintenance of feed systems and their components</li> <li>• work health and safety requirements and practices used for servicing and repairing milking equipment.</li> </ul>	
<b>Assessment Conditions</b>	
<p>Assessment of the skills in this unit of competency must take place under the following conditions:</p> <ul style="list-style-type: none"> <li>• physical conditions:             <ul style="list-style-type: none"> <li>• skills must be demonstrated in a dairy milking facility or an environment that accurately represents workplace conditions</li> </ul> </li> <li>• resources, equipment and materials:             <ul style="list-style-type: none"> <li>• milking equipment and components specified in performance evidence</li> <li>• tools and equipment used to service and repair equipment</li> <li>• personal protective equipment</li> </ul> </li> <li>• specifications:             <ul style="list-style-type: none"> <li>• workplace procedures for servicing and maintaining milking equipment, including advice on health and safety requirements.</li> </ul> </li> </ul> <p>Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.</p>	
<b>Links</b>	<p>Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72">https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72</a></p>