



Australian Government

Department of Education, Employment and Workplace Relations

AHCMKH404A Install milking equipment

Release: 1

AHCMKH404A Install milking equipment

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit covers installing milking equipment and defines the standard required to: interpret plans and equipment specifications; ensure that proper equipment and component matching is practised; interpret construction plans and specifications on machinery and equipment components for dairy installations; manufacture/assemble milking equipment in the workshop; fit and test milking equipment.
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Application of the Unit

Application of the unit	This unit applies to milking machinery technicians.
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Licensing/Regulatory Information

Not Applicable

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Not Applicable

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA

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1. Order installation components	1.1.Contract for work is completed with customer. 1.2.Specified tinware is ordered in line with planned installation. 1.3.Bending and rolling of pipe work by external contract are overseen to ensure specifications are met. 1.4.Components are assembled in transportable sections in preparation for transfer to site. 1.5.Specialist advice is sought for non-standard installations.
2. Inspect and prepare installation site	2.1.Site is checked for correct location, dimensions and levels, etc., utilising appropriate measuring equipment. 2.2.Occupational Health and Safety (OHS) hazards are identified, risk assessed, hazards eliminated or risk controlled and risk assessment recorded. 2.3.Non-compliance with the contract specification is reported and alterations and correction are undertaken in co-operation with the appropriate authorities. 2.4.Installation is measured and layout marked in line with contract plans.
3. Manufacture components in the workshop	3.1.Vacuum pump guards and stands are manufactured according to specifications. 3.2.Pipelines and vessels are manufactured and assembled according to installation design. 3.3.Electrical components are pre-wired in the workshop. 3.4.Non-milking systems are completed as required in dairy plan. 3.5.OHS hazards are identified, risks assessed and safe systems of work implemented during manufacture.
4. Install equipment	4.1.Machine/equipment components are prepared for correct sequential installation. 4.2.Machine/equipment is installed in accordance with manufacturers and site specifications and in co-operation with the dairy farmer and other trade and building personnel. 4.3.All work is carried out in accordance with appropriate legislative requirements and in compliance with Australian Standards for Milking

ELEMENT	PERFORMANCE CRITERIA
	Equipment Installation and Performance. 4.4.OHS hazards are identified, risk assessed and safe systems of work implemented during installation. 4.5.Routine modifications/alterations are undertaken to standard operating procedures where required. 4.6.Machine/equipment is levelled, aligned, coupled and connected (excluding electrical components) in accordance with the specification.
5. Commission test installed equipment	5.1.Completed equipment is mechanically tested to ensure that it conforms to design specification and performance standards, including OHS standards. 5.2.Equipment performing below standard is brought up to manufacturer's specifications. 5.3.Final work quality and finish complies with established industry standards. 5.4.Site is cleaned and cleared of all materials and debris and left in a safe state and in consideration of environmental and OHS considerations. 5.5.All alterations/modifications are recorded and/or reported to the appropriate authority.

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- identify hazards and implement safe work practices
- interpret technical data
- interpret plans and equipment specifications
- ensure that proper equipment and component matching is practised
- understand construction plans and specifications on machinery and equipment components of dairy installations
- safely utilise hand and power tools in a workshop and field situation
- use minimum standard recommendations in the assembly and installation of milking equipment
- safely use a range of hand and power tools
- be resourceful in all aspects of fitting milking equipment

REQUIRED SKILLS AND KNOWLEDGE

- employ safe working practices and exercise duty of care whilst employed on work-sites
- use literacy skills to read, interpret and follow organisational policies and procedures, develop sequenced written instructions, record accurately and legibly information collected and select and apply procedures to a range of tasks
- use oral communication skills/language competence to fulfil the job role as specified by the organisation including questioning, active listening, asking for clarification, negotiating solutions and responding to a range of views
- use numeracy skills to estimate, calculate and record routine and more complex workplace measures and data
- use interpersonal skills to work with others and relate to people from a range of cultural, social and religious backgrounds and with a range of physical and mental abilities.

Required knowledge

- an appreciation of the function of the full range of the components of milking machines and equipment
- vacuum and the operation of pulsation systems
- international standards for milking equipment and their application in Australia in working sheds
- OHS legislation and codes of practice, in the relevant state, and specifically regulations relating to equipment, machinery and noise
- the application of dairy shed design in the field
- the mechanical testing of milking equipment installations
- original equipment manufacturer's requirements for milking equipment installation
- the working requirements of milking sheds including the siting of components to ensure efficient shed operation
- milking equipment installation standards including pipe sizing, friction loss, component size selection, drainage within the equipment, bracketing, waterproofing and safety including practical design criteria for safe operation
- safe working practices in a workshop and building situation. This will include an awareness of safe lifting and manual handling practices, the safe use of hand and power tools, and duty of care to all other personnel on-site.

Evidence Guide

EVIDENCE GUIDE	
The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	The evidence required to demonstrate competency in this unit must be relevant to workplace operations and satisfy holistically all of the requirements of the performance criteria and required skills and knowledge and include achievement of the following: • interpret plans and equipment specifications • ensure that proper equipment and component matching is practised • interpret construction plans and specifications on machinery and equipment components for dairy installations • manufacture/assemble milking equipment in the workshop • fit and test milking equipment.
Context of and specific resources for assessment	Competency requires the application of work practices under work conditions. Selection and use of resources for some worksites may differ due to the regional or enterprise circumstances.

Range Statement

RANGE STATEMENT	
The range statement relates to the unit of competency as a whole.	
Milking machinery may include:	• milking equipment • milk storage and cooling equipment • Cleaning in Place (CIP) systems.
Milking equipment installed or serviced may include:	• full shed installations • pipework and vessels • vacuum pumps • regulators

RANGE STATEMENT

	• plate coolers • cup removers • cleaning systems • cluster and pulsation systems • releasers and milk transfer systems • non-milking systems may include: • feeding systems • jetters • automatic cup removers.
Installations may include:	• new milking sheds • be installed in existing sheds to replace old equipment.

Unit Sector(s)

Unit sector	Milk harvesting
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Co-requisite units

Co-requisite units	

Competency field

Competency field	
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