



Australian Government

Department of Education, Employment and Workplace Relations

FDFSUG230A Undertake forming, bending and shaping

Release: 1

FDFSUG230A Undertake forming, bending and shaping

Modification History

New Unit based on *SUGSFBS2A Undertake forming, bending and shaping*.

Unit Descriptor

This unit describes the outcomes required to carry out forming, bending and shaping operations. A person who has achieved competence in *MEM05010B Apply fabrication, forming and shaping* or equivalent is recognised as competent in this sugar milling unit.

Application of the Unit

Not applicable.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

There are no pre-requisites units for this competency standard.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.

Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Prepare for forming, bending and shaping to meet specifications	1.1 Forming, bending and shaping requirements are identified 1.2 The equipment is set up and adjusted to achieve required outcomes 1.3 Simple templates are prepared to meet outcome specifications 1.4 Pre-operational equipment checks are conducted 1.5 Health and safety hazards / maintenance requirements are identified and reported to appropriate personnel according to workplace reporting procedures
2 Operate forming, bending and shaping equipment to achieve required outcome	2.1 Equipment is started, operated and shut down according to operating procedures and manufacturer's specification 2.2 Materials are accurately positioned in the machine/equipment 2.3 Equipment is adjusted as required to achieve required outcomes 2.4 The workplace meets housekeeping standards
3 Form, bend and shape material	3.1 Material is levelled, straightened, rolled, pressed or bent to achieve required outcomes 3.2 Material is formed and shaped to size to meet specifications 3.3 Final form/shape is checked for compliance to specification 3.4 Non-conforming shapes are identified and corrected as required

Required Skills and Knowledge

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

Required skills

Ability to:

- identify forming, bending and shaping requirements - this may require interpretation of technical drawings or sketches
- select, fit and use personal protective clothing and/or equipment
- confirm status of equipment, that safety guards are in place, equipment is fit for operation and required services are available
- mark out and produce simple templates - this involves producing sheet metal templates developed and cut to the required size
- position or feed material according to equipment requirements
- set up, adjust, operate and shut down equipment according to workplace procedures
- produce formed and/or shaped material to meet job specification
- confirm that the formed and/or shaped material meets specification - this may involve the use of templates and simple measuring instruments
- take corrective action in response to out-of-tolerance results
- maintain work area to meet housekeeping standards

Required knowledge includes:

Knowledge of:

- relevant state OHS legislation, standards and codes of practice relating to work responsibilities
- relevant site operating procedures and practices
- purpose and basic operating principles of forming, bending and shaping equipment including awareness of equipment operating capacities
- the effect of heating materials on the forming and bending process
- scope to adjust equipment parameters and related effect on outcome
- safe work procedures including awareness of health and safety hazards related to the operation of forming, bending and shaping equipment
- housekeeping standards for the work area

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	Assessment must be carried out in a manner that recognises the cultural and literacy requirements of the assessee and is appropriate to the work performed.
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of ability to: • identify forming, bending and shaping requirements • select, fit and use personal protective clothing and/or equipment • mark out and produce simple templates • position or feed material according to equipment requirements • set up, adjust, operate and shut down equipment • produce formed and/or shaped material to meet job specification • confirm that the formed and/or shaped material meets specification
Context of and specific resources for assessment	Assessment must occur in a real or simulated workplace where the assessee has access to: • Forming, bending and shaping equipment • Relevant measuring instrumentation • Materials to be formed, bent and/or shaped • Drawings, templates and specifications as required • Operating procedures and related advice on equipment/instrumentation operation • Personal protective clothing and equipment • Housekeeping standards and procedures
Method of assessment	Other units of competency relevant to the work role should be assessed in conjunction with this unit.
Guidance information for assessment	To ensure consistency in one's performance, competency should be demonstrated on more than one occasion over a period of time in order to cover a variety of circumstances, cases and responsibilities, and where possible, over a number of assessment activities.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Policies and procedures	Work is carried out in accordance with company policies and procedures, licensing requirements, manufacturer's recommendations, legislative requirements, codes of practice and industrial awards and agreements.
Codes of practice	Codes of practice include the Sugar Milling Operations Industry Code of Practice.
Range of shapes and products	The range of shapes and products formed may include • pipes • cylinders • cones • angles • ductwork • tubular shapes including hand rails and pipes.
Materials	Materials may include ferrous, non-ferrous and non-metallic substances.
Forming processes	Forming processes may be hot or cold.
Tools and equipment	Tools and equipment may include • presses • shapers • benders • drop hammers.
Measuring instrumentation	Measuring instrumentation may include • dividers • trammels • rulers.
Pre-operational checks	Pre-operational checks may include • confirming that safety guards are in place • equipment is operational • other pre-start checks as required by workplace procedure.

Teamwork	Work may require the ability to work within a team environment.
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Unit Sector(s)

Sugar Milling