



Australian Government

PMBPROD254 Operate an open mill blender

Release: 1

PMBPROD254 Operate an open mill blender

Modification History

Release 1. Supersedes and is equivalent to PMBPROD254C Operate an open mill blender

Application

This unit of competency covers the skills and knowledge required to operate an open mill blender/mixer and ancillary equipment that is integral to the process. Open mill blenders, such as Banbury dump mills, are typically used to compound rubber. The mixing/blending may be incidental to other processes, such as slabbing off or stripping.

This unit of competency applies to operators who are required to prepare the rubber and other materials, mix the materials to procedures, remove mixed rubber from the mill and recognise routine and non-routine problems and take appropriate action.

This unit of competency applies to an individual working alone or as part of a team or group and working in liaison with other shift team members, team leader and supervisor, as appropriate.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Production

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

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

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|---|--|-----|--|
| 1 | Check work requirements | 1.1 | Identify work requirements from production plans of workplace procedures |
| | | 1.2 | Check product, materials and equipment meet requirements for job |
| | | 1.3 | Recognise hazards and implement necessary steps to ensure safety |
| | | 1.4 | Ask questions of appropriate person to confirm usual practice |
| | | 1.5 | Ensure housekeeping is to requirements |
| | | 1.6 | Identify hazards associated with the job and take appropriate action |
| | | 1.7 | Perform other pre-operational checks in accordance with workplace procedures |
| | | | |
| 2 | Check process set-up | 2.1 | Check safety gates and guards are in position and working |
| | | 2.2 | Check materials are correct |
| | | 2.3 | Complete pre-start checks |
| | | | |
| 3 | Operate open mill blender to procedures | 3.1 | Start, operate and stop mill as required by procedures |
| | | 3.2 | Band, cut, fold and work rubber as needed |
| | | 3.3 | Add materials evenly at correct rate and time and blend in |
| | | 3.4 | Check open mill blender operations |
| | | 3.5 | Make adjustments to remedy faults and non-conformity to product blend standards where applicable |
| | | 3.6 | Collect and reuse material which is able to be reprocessed |

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|---|--|-----|--|
| | | 3.7 | Deal with waste and scrap in accordance with procedures |
| | | 3.8 | Clean, adjust and lubricate equipment as required |
| 4 | Respond to routine problems in accordance with procedures | 4.1 | Recognise known faults that occur during the operation |
| | | 4.2 | Identify and take action on causes of routine faults |
| | | 4.3 | Log problems as required |
| | | 4.4 | Identify non-routine problems and quality problems and take appropriate action |

Foundation Skills

This section describes those required skills (language, literacy and numeracy) that are essential to performance.

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Regulatory framework The latest version of all legislation, regulations, industry codes of practice and Australian/international standards, or the version specified by the local regulatory authority, must be used.

Applicable legislation, regulations, standards and codes of practice include:

- health, safety and environmental (HSE) legislation, regulations and codes of practice relevant to the workplace, equipment and production processes and hazardous materials
- Australian/international standards relevant to the materials being used and products being made
- any relevant licence and certification requirements.

All operations to which this unit applies are subject to stringent HSE requirements, which may be imposed through state/territory or federal legislation, and these must not be compromised at any time. Where there is an apparent conflict between performance criteria and such requirements the legislative requirements take precedence.

Procedures All operations must be performed in accordance with relevant procedures.

Procedures are written, verbal, visual, computer-based or in some other form, and include one or any combination of:

- emergency procedures
- work instructions
- standard operating procedures (SOPs)
- safe work method statements (SWMS)
- formulas/recipes
- batch sheets
- temporary instructions
- any similar instructions provided for the smooth running of the plant.

Tools and equipment Tools and equipment include:

- open mill blending equipment
- ancillary equipment that is integral to the process.

Additional tools and equipment will be selected as required from:

- mill knives
- nip adjusting bars
- bale hooks
- hoists/lifting equipment not requiring any special permits or licences
- manual handling aids, such as hand carts and trolleys
- relevant personal protective equipment (PPE).

Hazards

Hazards must be identified and controlled. Identifying hazards requires consideration of:

- weight, shape, volume of materials to be handled
- hazardous products and materials
- knives, blades, cutting and nipping tools
- sharp edges, protrusions or obstructions
- slippery surfaces, spills or leaks
- rotational equipment or vibration
- high temperatures
- smoke, dust, vapours or other atmospheric hazards
- electricity
- gas
- gases and liquids under pressure
- structural hazards
- equipment failures
- machinery, equipment and product mass
- other hazards that might arise.

Routine problems

Routine problems must be resolved by applying known solutions.

Routine problems are predictable and include one or more of:

- power failures
- incorrect machine adjustments
- incorrect quantities of materials
- incorrect blending times
- equipment breakdowns
- short scorch products
- forming the initial band
- adjusting bank size for efficient mixing
- variations in materials

- contamination of materials
- lack of a homogeneous product.

Known solutions are drawn from one or more of:

- procedures
- training
- remembered experience.

Non-routine problems must be reported according to according to relevant procedures.

Unit Mapping Information

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Links

MSA Training Package Implementation Guides - <http://mskills.org.au/training-packages/info/>