



Australian Government

PMBPROD328E Produce sheet-fed vacuum-formed products

Release: 1

PMBPROD328E Produce sheet-fed vacuum-formed products

Modification History

Release 1. Unit code and title changed. Application changed. Elements and Performance Criteria changed. Range of Conditions removed. Assessment Requirements changed. Supersedes and is equivalent to PMBPROD328 Produce sheet feed vacuum forming products.

Application

This unit describes the skills and knowledge required to operate, control and optimise sheet-fed vacuum-forming equipment to produce products.

This unit applies to an experienced technician working alone or as part of a team.

The unit principally refers to a continuous thermoforming production process that involves a varying degree of automation, from very little automation through to a fully programmable process.

No licensing or certification requirements exist at the time of publication. Relevant legislation, industry standards and codes of practice within Australia must be applied.

Pre-requisite Unit

Nil

Competency Field

Production – Plastics Fabrication

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
1. Plan work requirements	1.1 Identify equipment and materials requirements, including additives, from job specifications 1.2 Identify processes required for production and upstream and downstream operations from job specifications 1.3 Perform pre-operational checks including checking for and controlling hazards 1.4 Identify and check emergency stops, guards and controls 1.5 Identify checks and testing processes required for equipment, materials, quality and production management

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.6 Identify housekeeping needs and waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed
2. Perform pre-production tasks	2.1 Verify equipment requirements against job requirements 2.2 Set production process according to equipment and job specifications, and adjust process to optimise output based on selected materials 2.3 Set up and adjust vacuum-forming equipment production line settings to meet job specifications 2.4 Verify materials are correct against job specifications 2.5 Set up date, batch and materials markings according to workplace procedures 2.6 Undertake other pre-startup checks according to equipment specification and workplace procedures
3. Operate sheet-fed vacuum-forming equipment	3.1 Start machine safely and correctly according to equipment instructions 3.2 Operate sheet-fed vacuum-forming processes, and make adjustments to settings to meet job specifications 3.3 Ensure process is operating according to equipment specifications and workplace procedures 3.4 Follow checking and test processes to assess if output meets job specifications and quality standards, and apply strategies for managing nonconforming outputs 3.5 Maintain continuity of process to support production 3.6 Apply waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed according to workplace procedures 3.7 Clean, adjust and lubricate equipment according to equipment specifications and workplace procedures 3.8 Pause equipment or stop equipment in normal and abnormal circumstances according to workplace procedures
4. Shut down vacuum-forming equipment	4.1 Shut down equipment according to equipment instructions and workplace procedures 4.2 Complete equipment clean-up and post-production adjustments according to equipment instructions and workplace procedures

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	4.3 Put guards, locks and notices in place to prevent inadvertent startup 4.4 Accurately complete workplace shutdown documentation
5. Anticipate and solve process control variances	5.1 Recognise existing or potential process control variances and their causes 5.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 5.3 Monitor process control variances and corrective actions taken until resolved 5.4 Accurately maintain records and logbooks

Foundation Skills

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

- Numeracy skills to interpret technical information and equipment readings.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on sheet-fed vacuum-forming production.

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

Unit Mapping Information

Supersedes and is equivalent to PMBPROD328 Produce sheet feed vacuum forming products.

Links

Companion Volume implementation guides are found in VETNet – -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=932aacef-7947-4c80-acc6-593719fe4090>

Assessment Requirements for PMBPROD328E Produce sheet-fed vacuum-formed products

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Performance Evidence

There must be evidence the candidate has completed the tasks outlined in the elements and performance criteria of this unit, and demonstrated the ability to:

- produce sheet-fed vacuum-formed products at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the functions and operating principles of sheet-fed vacuum-forming equipment, machine components and ancillary equipment
- sheet-fed vacuum-forming manufacturing process and phases of the cycle
- types of materials and their characteristics, including the impact of variations in machine process conditions and raw materials on product quality and production output
- the criteria for overall process/equipment readiness for the process or equipment being used
- typical quality standards required at each stage of production
- key variables that may affect product quality and production output, and common adjustments in these variables that can alter those impacts
- typical and atypical process and product problems, including early warning signs, possible causes and corrective actions
- the distinguishing characteristics of causes of problems as being either based on the properties of materials or caused by process variables
- organisational procedures relevant to the work environment or job role, including procedures for the emergency shutdown of equipment
- hazards that may arise in the job or work environment, and:
 - their possible causes
 - potential consequences
 - appropriate risk controls.

Assessment Conditions

Skills must have been demonstrated in the workplace or in a simulated environment that reflects workplace conditions and contingencies.

Assessors must satisfy the NVR/AQTF mandatory competency requirements for assessors.

Links

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