



Australian Government

PMBPREP301E Set up and prepare for batch production

Release: 1

PMBPREP301E Set up and prepare for batch production

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 PMBPREP301 Set up and prepare for production.

Application

This unit describes the skills and knowledge required to prepare materials and equipment for production in plastics and rubber polymer processing with batch, one-off or non-standard production lots.

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

The unit principally refers to both the universal set-up and preparation program, and more specifically the rotational moulding (rotomoulding) process and similar polymer sectors, as it is an exemplar of batch production set-up techniques.

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

Preparation – Rotational Moulding

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. Select equipment and materials	1.1 Identify equipment and materials requirements from job specifications 1.2 Identify special tooling requirements and set up according to job and equipment specifications 1.3 Identify production objectives and timelines from job specifications 1.4 Verify product specifications from product request 1.5 Plan work processes, noting key quality characteristics, check

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	points and activities where other personnel will be involved
2. Prepare tools, equipment and materials	2.1 Source required tools and equipment from workplace storage 2.2 Ensure required materials are correctly located for commencement of production
3. Set up and check production process	3.1 Set production process including work process plan to meet requirements 3.2 Set machine control parameters according to machine and job specifications 3.3 Obtain clearances from appropriate personnel for production to commence 3.4 Start up equipment and check function and performance against expected standards 3.5 Adjust equipment control settings provisionally according to equipment specifications 3.6 Check process control settings and materials performance against job specifications and expected output quality 3.7 Record production process data including required adjustments within specification ranges according to workplace documentation requirements
4. Anticipate and solve process control variances	4.1 Recognise existing or potential process control variances and their causes 4.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 4.3 Monitor process control variances and corrective actions taken until resolved 4.4 Identify possible system or process improvements and make recommendations to relevant personnel

Foundation Skills

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

- Numeracy skills to interpret technical specifications and equipment readings.
- Reading skills to interpret specifications and workplace procedures.

- Writing and oral communication skills to record and report on batch production set-up and preparation, and process control variances.

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 PMBPREP301 Set up and prepare for production.

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 PMBPREP301E Set up and prepare for batch production

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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:

- set up and prepare for batch production to meet job specifications at least once.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the function and operating principles of batch production equipment, machine components and ancillary equipment
- batch production workflow sequences and materials demand
- the nature of mechanical, hydraulic, pneumatic, electrical and electronic principles that may affect machine operation and product development
- products, materials and material characteristics, and their relationship to the batch production process
- typical quality standards required at each stage of batch production, and procedures for quality management
- key variables that may affect product quality and production output, including impact of machine operating parameters and product parameters
- the distinguishing characteristics of causes of problems, alarms and fault indicators as being based on either operational problems or product parameters (temperature, flows, pressures and levels)
- typical process and product problems, including early warning signs, possible causes and corrective actions
- 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.

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