



Australian Government

PMBPROD213E Operate polymer extruders

Release: 1

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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 PMBPROD213 Operate extruders.

Application

This unit describes the skills and knowledge required to perform routine operations relating to the extrusion process, typically for pipe, sheet, profile, film or cable production.

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

This unit principally refers to the application of introductory-level machine knowledge and consistently performing routine operations for continuous operation of extrusion technology.

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 – Extrusion

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. Check work requirements	1.1 Identify requirements from production plan or job specifications 1.2 Check polymer materials meet requirements for job 1.3 Identify and perform housekeeping tasks in preparation for work to be undertaken 1.4 Perform pre-operational checks including checking for and acting on hazards
2. Operate extruder	2.1 Check process is operating according to equipment specifications and job requirements 2.2 Ensure extruder is ready for continuous production according to job requirements

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	2.3 Monitor and maintain supply of polymer materials to support operation of equipment 2.4 Accurately complete logs and quality-assurance records for production output and polymer usage 2.5 Apply waste management strategies to collect and segregate scrap, trim and other materials according to workplace procedures 2.6 Clean equipment and work area according to operational and workplace procedures 2.7 Pause and stop machine cycle in normal and abnormal circumstances according to workplace procedures
3. Change product or grade while operating	3.1 Run down or purge outgoing grade or product according to equipment instructions 3.2 Make required changes for incoming product or grade according to equipment instructions 3.3 Introduce incoming materials or grade according to equipment instructions and check incoming product meets production requirements
4. Respond to process control variances	4.1 Recognise and log process control variances and their issues 4.2 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 polymer extrusion equipment operations.

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 PMBPROD213 Operate extruders.

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 PMBPROD213E Operate polymer extruders

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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:

- operate polymer extruders at least once to meet work requirements.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the function of extrusion equipment machine components and ancillary equipment
- principles of operation of single-screw and twin-screw extruders
- extrusion production workflow sequences and materials demand
- key variables that may impact product quality and production output
- typical quality standards at each stage of production
- 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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