



Australian Government

PMBPROD280E Operate a chopper gun to lay-up composites

Release: 1

PMBPROD280E Operate a chopper gun to lay-up composites

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 PMBPROD280 Operate resin-glass depositor equipment.

Application

This unit describes the applied skills and knowledge required to lay-up polymer-matrix laminates using a manual chopper gun.

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

The unit principally refers to an operator consistently applying introductory-level knowledge and workplace procedures to mechanical wet lay-up techniques, with operator control of the lay-up 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 – Composites

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 job specifications 1.2 Perform pre-operational checks including checking for and acting on hazards
2. Conduct pre-startup checks	2.1 Check safety equipment and guards are in position and working according to equipment specifications 2.2 Check operation of chopper gun against equipment specifications to ensure readiness for use 2.3 Check moulds for cracks, chips, marks and cleanliness 2.4 Verify materials, including fibre preforms, resins, additives and

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	release agents, are correct against job specifications 2.5 Undertake other pre-startup checks according to equipment specifications and workplace procedures
3. Operate chopper gun equipment	3.1 Start equipment safely and correctly according to equipment instructions 3.2 Check process is operating within required limits to meet job requirements 3.3 Check output meets specifications and quality standards 3.4 Monitor and maintain supply of materials to support operation of equipment 3.5 Collect and store products and store according to job specifications 3.6 Accurately complete logs and records 3.7 Apply waste management strategies to collect and segregate scrap, trim, waste and other materials according to workplace requirements 3.8 Clean equipment and work area according to workplace procedures 3.9 Pause or stop equipment cycle in normal and abnormal circumstances according to workplace procedures
4. Respond to process control variances	4.1 Recognise and log process control variances and their causes 4.2 Determine, prioritise and implement remedial and preventative actions based on identified issues and causes 4.3 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.
- Reading skills to interpret specifications and workplace procedures.
- Writing and oral communication skills to record and report on chopper gun 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 PMBPROD280 Operate resin-glass depositor equipment.

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 PMBPROD280E Operate a chopper gun to lay-up composites

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 PMBPROD280 Operate resin-glass depositor equipment.

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 a chopper gun to lay-up composites at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the function of chopper guns, their components and ancillary equipment
- principles of operation of the equipment
- the criteria for overall process or equipment readiness for the process or equipment being used, including moulds
- production workflow sequences and materials demand
- key variables that may affect product quality and production output, including:
 - machine conditions
 - humidity and temperature
 - ratio of fibre or additives to resin
 - production rate
 - product integrity and general conformance to specifications
- 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.

Links

Companion Volume implementation guides are found in VETNet – -

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