



Australian Government

PMBPROD304E Wind up wire or belts

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 PMBPROD304 Wind products onto drums.

Application

This unit describes the skills and knowledge required to operate winding equipment as part of processing wire spools or conveyor belts.

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

The unit principally refers to the winding operation involving heavy wire or rubber conveyor belting, and hazardous, fast winding speeds, so efficient and safe operation is paramount.

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 – Conveyor Belt Manufacturing

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 materials, including additives, and equipment requirements from job specifications 1.2 Identify equipment and 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 according 1.5 Identify checks and testing processes required for materials, quality and production management to meet job requirements

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	1.6 Identify waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled or reprocessed according to workplace procedures
2. Conduct pre-startup checks	2.1 Verify equipment requirements against work requirements 2.2 Set process according to job specifications and work requirements 2.3 Verify materials are correct against job specifications 2.4 Check speed, time, tension and wind-off speed against job and equipment specifications 2.5 Check winding equipment settings and adjustments, including tensions and spool loading against equipment specifications 2.6 Set up date, batch and materials markings according to workplace procedures 2.7 Undertake other pre-startup checks according to equipment specifications and workplace procedures
3. Operate winding equipment	3.1 Check and load materials using correct manual handling methods 3.2 Start up and operate equipment, 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 testing processes to assess if output meets job specifications and quality standards, and apply strategies for managing non-conforming outputs 3.5 Maintain continuity of process to support production 3.6 Accurately complete logs and records 3.7 Apply waste management strategies to collect excess, discarded or nonconforming materials to be disposed of, recycled, or reprocessed according to workplace procedures 3.8 Clean, adjust and lubricate equipment according to equipment instructions 3.9 Pause or stop machine cycle in normal and abnormal circumstances according to workplace and emergency procedures
4. Shut down equipment	4.1 Shut down equipment according to equipment instructions and workplace procedures 4.2 Complete equipment clean-up and post-production adjustments

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element.
	according to equipment instructions and workplace procedures 4.3 Put guards, locks and notices in place to prevent inadvertent start-up
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 winding 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 PMBPROD304 Wind products onto drums.

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 PMBPROD304E Wind up wire or belts

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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:

- wind up wire or belts at least once to meet job specifications.

Knowledge Evidence

There must be evidence the candidate has knowledge of:

- the functions of winding equipment and its components and ancillary equipment
- operating principles of winding equipment and its components, and ancillary equipment
- the criteria for overall process or equipment readiness for the process or equipment being used production workflow sequences and materials demand
- types of materials for winding and their characteristics, and their interactions with process conditions
- typical quality standards required at each stage of production
- key variables that may affect product quality and production output, including:
 - temperature
 - speed
 - time
 - tension
 - wind-off speed
 - product integrity and general conformance to specification
- typical and atypical process and product problems, including early warning signs, possible causes and corrective actions
- organisational procedures relevant to the work environment and 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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