



Australian Government

MSTTN2002 Set up and operate a spun bond web forming machine

Release: 1

MSTTN2002 Set up and operate a spun bond web forming machine

Modification History

Release 1. Supersedes and is equivalent to LMTTN2002B Set up and operate a spun bond web forming machine

Application

This unit of competency covers the skills and knowledge required to set up and operate spun bond web forming machines used to manufacture non-woven textiles.

The unit of competency covers the skills needed for initial start-up and product changeovers of spun bond web forming machines, including machine settings, first-off runs and adjustments.

Work may be conducted in small to large scale enterprises and may involve individual and team activities.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Nil

Competency Field

Technical textiles and non-wovens

Unit Sector

Not applicable

Elements and Performance Criteria

Elements describe the essential outcomes.

Performance criteria describe the performance needed to demonstrate achievement of the element.

1 Determine job requirements

- | | |
|-----|---|
| 1.1 | Follow standard operating procedures (SOPs) |
| 1.2 | Comply with work health and safety (WHS) requirements at all times |
| 1.3 | Use appropriate personal protective equipment (PPE) in accordance with SOPs |

- | | | | |
|---|--|-----|---|
| | | 1.4 | Identify job requirements from specifications, drawings, job sheets or work instructions |
| 2 | Set up and load spun bond web forming machine | 2.1 | Check specifications to identify requirements to produce filaments |
| | | 2.2 | Check raw materials containers and quantities |
| | | 2.3 | Adjust machine settings to meet product requirements |
| | | 2.4 | Clean area around machine during and on completion of setting and loading |
| 3 | Operate and monitor spun bond web forming machine | 3.1 | Start and stop spun bond web forming machine according to machine manufacturer instructions and job requirements |
| | | 3.2 | Monitor machines to ensure operation is correct and safe |
| | | 3.3 | Sort waste and clean machine, when required |
| | | 3.4 | Identify, correct and report minor product, process and machine faults, where necessary, to meet specified requirements |
| | | 3.5 | Operate machine according to WHS and workplace practices and report major machine faults |
| 4 | Check web quality and complete operations | 4.1 | Check formed web against quality standards and production requirements |
| | | 4.2 | Identify, rectify or report web faults and non-conformances |
| | | 4.3 | Despatch spun bond web to bonding or finishing process |
| | | 4.4 | Clean area to maintain a safe and productive work environment |
| | | 4.5 | Complete production records |

Foundation Skills

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

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

Range of Conditions

This field allows for different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Workplace procedures include one or more of the following:

- requirements prescribed by legislation, awards, agreements and conditions of employment
- SOPs
- work instructions
- oral, written and visual communication
- quality practices, including responsibility for maintenance of own work quality and contribution to quality improvement of team or section output
- housekeeping
- tasks related to environmental protection, waste disposal, pollution control and recycling
- WHS practices

Australian Standards include:

- the relevant industry or Australian Standards that are current at the time this unit is being undertaken

Filaments include one or more of the following:

- continuous threads
- size - 1.1-8.0 dtex (diameter)
- different types, including polyester and polypropylene

Spun bond web forming machines include one or more of the following:

- extrusion and spinning
- attenuating
- orientation
- lay down
- web carrying
- web bonding machine

Spun bond web process

- the melt spinning of polymers to produce continuous filaments (threads) of polymer

includes the following:

- threads are laid to form a web
- web is then bonded and finished

WHS practices

WHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit, and include one or more of the following:

- manual handling techniques
- SOPs
- PPE
- safe materials handling
- taking of rest breaks
- ergonomic arrangement of workplaces
- following marked walkways
- safe storage of equipment
- housekeeping
- reporting accidents and incidents
- other WHS practices relevant to the job and enterprise

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTN2002B Set up and operate a spun bond web forming machine

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>

Assessment Requirements for MSTTN2002 Set up and operate a spun bond web forming machine

Modification History

Release 1. Supersedes and is equivalent to LMTTN2002B Set up and operate a spun bond web forming machine

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy the requirements of the elements and performance criteria, and include:

- reading and following work instructions, standard operating procedures and safe work practices and other reference material
- applying relevant standards
- checking machine safety equipment and reporting any faults
- preparing materials for web forming
- loading and unloading materials
- starting and stopping spun bond web forming machines according to specifications on at least two (2) occasions
- monitoring machine operations, including machine production readings, on at least two (2) occasions
- recognising, rectifying and reporting machine faults or problems, as required
- maintaining clean machines and work environment, as required
- undertaking quality checks and recognising and responding to faulty product
- applying workplace procedures
- maintaining accurate records.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- relevant Australian Standards
- operational variables, including:
 - polymer throughput
 - air throughput
 - spinneret configuration (hole size and distance to collector)
 - spinning, drawing and deposition options and techniques
 - bonding techniques and options
 - filament types, including:
 - polyester
 - polypropylene

- filament characteristics, including:
 - spinnability
 - filament structure
 - filament crimp
- measuring units, including decitex and denier
- work health and safety (WHS) practices, including hazard identification and control measures
- quality practices
- workplace procedures
- recording and reporting practices.

Assessment Conditions

- Assessors must:
 - satisfy the assessor competency requirements that are in place at the time of the assessment, as set by the VET regulator
 - have vocational competency in setting up and operating a spun bond web forming machine, at least to the level being assessed, with relevant industry knowledge and experience.
- Assessment should occur in operational workplace situations. Where this is not possible, or where personal safety or environmental damage are limiting factors, assessment must occur in a sufficiently rigorous simulated environment reflecting realistic operational workplace conditions. This must cover all aspects of workplace performance, including environment, task skills, task management skills, contingency management skills and job role environment skills.
- Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.
- Conditions for assessment must include access to all tools, equipment, materials and documentation required, including relevant workplace procedures, product and manufacturing specifications associated with this unit.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a203ec5c-de7d-406b-b3e1-8f1a9b76e92e>