



Australian Government

MSTTD4002 Prepare stencils and screens for textile printing

Release: 1

MSTTD4002 Prepare stencils and screens for textile printing

Modification History

Release 1. Supersedes and is equivalent to LMTTD4013A Prepare stencils and screens for textile printing

Application

This unit of competency covers the skills and knowledge required to prepare screen print design samples for textiles.

The unit of competency applies to the use of stencil, or silk-screen printing techniques to produce designs and artwork for textiles to be used for garments, textile products, furnishing fabrics or accessories or public art commissions.

Screen printing involves the use of manual techniques, tools and equipment.

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

Textile design and development

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 | Prepare to prepare stencils and screens | 2.1 | Analyse design specifications and confirm stencil requirements with appropriate personnel |
| | | 2.2 | Set up workstation, tools and equipment according to specifications and workplace procedures |
| | | 2.3 | Identify desired effects of screen printing and select appropriate conversion technique to achieve required design outcome |
| | | 2.4 | Prepare and label layouts and select media to prepare stencils |
| | | 2.5 | Complete stencils and check against design |
| 3 | Prepare screens | 3.1 | Select screen types and mesh for appropriate substrates |
| | | 3.2 | Prepare screens for stencil process and check against quality standards |
| | | 3.3 | Expose stencil masters according to industry specifications |
| | | 3.4 | Develop screen images, dry and finish |
| | | 3.5 | Apply screen preparation according to workplace procedures |
| 4 | Test screens and stencil quality | 4.1 | Print strike off and check against design specifications to ensure quality standards are met |
| | | 4.2 | Identify screen and stencil faults and determine causes |
| | | 4.3 | Apply modifications to screens, as required, using appropriate techniques, processes or materials |
| | | 4.4 | Complete screens and prepare for production processes |
| | | 4.5 | Examine outcomes and check against specifications with appropriate personnel |

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
- PPE
- 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

Appropriate personnel include one or more of the following:

- trainers
- colleagues
- mentors
- designers
- members of the design team

Conversion techniques include one or more of the following:

- basic stencils
- hand cut and hand drawn stencils
- photosensitive stencils
- autographic
- digitally generated stencils
- multi-coloured separations

Finish includes one or more of the following:

- touch up and tape, as required
- wash image clean and dry
- check for pinholes
- clean wash out of image

Tools and equipment include one or more of the following:

- rulers and tape measures
- light boxes
- graph paper
- photocopier
- overhead projector
- photocopier
- computer equipment
- computer-aided design (CAD) software
- tables

Screen and stencil and production faults include one or more of the following:

- uneven screen coating
- incorrectly stretched screen mesh
- poorly registered artwork/separations
- inaccurate repeat measurements
- incorrect exposure time used
- wet coating trough causing pinholes
- warped screen frames
- insufficient print paste used
- off printing
- poorly developed image
- poor quality colour separations
- stencil opacity insufficient

Unit Mapping Information

Release 1. Supersedes and is equivalent to LMTTD4013A Prepare stencils and screens for textile printing

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 MSTTD4002 Prepare stencils and screens for textile printing

Modification History

Release 1. Supersedes and is equivalent to LMTTD4013A Prepare stencils and screens for textile printing

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:

- preparation of stencils on at least two (2) occasions for use with textile printing
- reading and following work instructions, standard operating procedures (SOPs), safe work practices
- using tools and equipment associated with screen printing
- analysing design specifications and interpreting production requirements
- identifying and addressing faults
- determining requirements of design and conversion to print
- making minor adjustments to equipment
- using printing techniques to test screens and stencil quality
- finalising screens ready for production
- evaluating own work, consulting relevant personnel and conducting quality checks
- applying workplace procedures.

Knowledge Evidence

Evidence must be provided that demonstrates knowledge of:

- safe work practices and procedures and use of personal protective equipment (PPE)
- characteristics of stencil and screen types :
 - timber, steel and aluminium framed
 - butt, mitre, nailed, glued, screwed and welded
 - rectangle, rotary, hat and flat bed
- specific design and printing practices
- design types:
 - repeat patterns
 - border designs
 - placement prints
 - engineered designs
 - banners
- printing processes and practices
- different types of screens and meshes:

- mesh types:
 - material
 - nylon
 - polyester
 - metal
- colour:
 - white
 - yellow
 - red
- size
- mono or multi-filament
- screen preparation:
 - checking for mesh tension
 - degreasing
 - haze removing
 - registration marks applied
 - coating
 - different types of medium
 - ruby lithe
 - designers opaque
 - ink
 - black wax crayon
 - digital prints
 - drafting film
 - pen
- conversion techniques
- stencil and printing techniques
- screen and stencil and production faults
- 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 preparing stencils and screens for screen printing, 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>