



Australian Government

Department of Education, Employment and Workplace Relations

LMTTD5011A Produce printed designs on woven and non-woven substrates

Revision Number: 1

LMTTD5011A Produce printed designs on woven and non-woven substrates

Modification History

Not applicable.

Unit Descriptor

Unit descriptor This unit covers the skills and knowledge required to apply screen printing techniques used to produce designs on woven and non woven substrates.

Application of the Unit

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The unit applies to the use of stencil, or silk-screen printing techniques to produce designs and artworks for woven and non-woven substrates and textiles to be used for garments, textile products or accessories. 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-related activities.

The application of this unit is according to OHS practices of the enterprise and workplace practices, which may include:

- requirements prescribed by legislation, awards agreements and conditions of employment
- standard operating procedures
- 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

This unit requires the application of communications skills associated with interpreting patterns and specifications, and planning and organising skills for the safe and effective use of textile printing technology and operations. This unit also requires an ability to check the quality of outcomes and identify and address problems relating to printing or production. Initiative and enterprise and problem solving will be used to combine printing processes, technique and medium to achieve desired design outcomes.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisites

Employability Skills Information

Employability Skills This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Not applicable.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1 Interpret production requirements	1.1 Design specifications are analysed and discussed with appropriate personnel to confirm production requirements 1.2 Desired effects of screen printing are identified and appropriate printing technique selected to achieve required outcome 1.3 Woven and non-woven substrates and quantities are selected according to design requirements 1.4 Stencil techniques, stencil types, masters, screen types, meshes and medium are selected according to requirements of printing technique and design
2 Apply screen printing procedure	2.1 Workstation, tools and equipment are set up according to specifications for work. 2.2 Woven or non woven substrates to be printed are checked against quality standards 2.3 Stencil masters, meshes and screens are prepared for printing according to requirements for selected printing technique 2.4 Screen printing techniques are applied to meet design specifications for sample and according to OHS practices 2.5 Screen print is finished and housekeeping completed
3 Finalise printing	3.1 Completed print is checked against design specifications to ensure quality standards are met 3.2 Printing faults and production problems are identified and causes determined 3.3 Printing process, technique and medium used are analysed to determine necessary modifications to printing techniques, processes or materials 3.4 Outcomes are examined with appropriate personnel and possible 3.5 Required documentation is completed

Required Skills and Knowledge

This describes the essential skills and knowledge and their level, required for this unit.

Demonstrates knowledge of:

- characteristics of fabrics
- information resources on fibres and fabrics
- specific design and printing practices
- printing processes and practices
- different types of screens and meshes
- different types of medium
- woven and non woven substrate characteristics
- stencil and printing techniques
- OHS practices, including hazard identification and control measures
- quality practices
- workplace practices
- recording and reporting practices

Demonstrates skills to:

- use tools and equipment associated with printing fabrics
- read, interpret and follow information on work specifications, standard operating procedures and work instructions, and other reference material
- maintain accurate records
- communicate within the workplace
- sequence operations
- meet specifications
- clarify and check task-related information
- carry out work according to OHS practices

Evidence Guide

The Evidence Guide provides advice on assessment and must be read in conjunction with the Performance Criteria, Required Skills and Knowledge, the Range Statement and the Assessment Guidelines for the Training Package.

Critical aspects of evidence to be considered	Demonstrates skills and knowledge to: • analyse design specifications and interpret production requirements • identify and address faults • determine effects of printing on woven and non woven substrates • make minor adjustments to equipment • use printing techniques to achieve design effects • recognise and apply stencil application for image use, design and printing techniques • evaluate own work and conduct quality checks
Consistency in performance	Consistently applies skills and knowledge when: • organising work • completing tasks • identifying improvements • using workplace practices • using OHS practices • recording and reporting accidents and incidents • assessing operational readiness of equipment used and work processes • completing work systematically with attention to detail without damage to goods and equipment
Resource implications	Access is required to real or appropriately simulated situations, including work areas, materials and equipment, and to information on workplace practices and OHS practices.
Context for assessment	Assessment may occur on the job or in an appropriately simulated environment.
Interdependent assessment	This unit may be assessed independently or in combination with other relevant units.

Range Statement

RANGE STATEMENT

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the Performance Criteria, is detailed below. Add any essential operating conditions that may be present with training and assessment depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts.

Legislative/regulatory requirements	All work must comply with relevant Federal and State or Territory legislative or regulatory requirements.
Appropriate personnel may include	• trainers • colleagues • mentors • designers • members of the design team
Printing technique may include	• registered techniques: • tabs • multi coloured • print rail • registration lays • placement printing • flatbed repeat printing • off-contact • wet-on-wet • flood coat • dry pull
Woven and non woven Substrates may include	• knits • felt • ceramic • vinyl • wool • silk • cotton
Stencil types include	• basic stencils • photosensitive stencils • screen preparation • stencil attachment • autographic
Screen types include	• timber, steel, aluminium framed • butt, mitre, nailed, glued, screwed, welded, • rectangle, rotary, hat, flat bed

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| Meshes include | <ul style="list-style-type: none">• mesh types:• material• nylon• polyester• metal• colour:• white• yellow• red• size• mono or multi-filament |
| Mediums may include | <ul style="list-style-type: none">• inks• dyes• specialist inks• binders• extenders• reducers• additives• evaporative• catalytic• thermoset• sublimation |
| Tools and equipment may include | <ul style="list-style-type: none">• squeegees• blocks• lino• brushes• knives• bucket, sink or container• mixers• rulers and tape measures• screen-cleaning equipment and chemicals• vacuum boards• carousel• printing tables with registration systems• vacuum print tables• exposure unit• scales high pressure hose• screen coaters• fans• blow dryers• light box• slide projector |

	• overhead projector • photocopier • computer equipment • CAD software
Screen preparation may include to	• reclaim • de-grease • wash and dry • apply emulsion • attach master and expose to light source
OHS practices	OHS practices must include hazard identification and control, risk assessment and implementation of risk reduction measures specific to the tasks described by this unit and may include: • manual handling techniques • standard operating procedures • personal protective equipment • safe materials handling • taking of rest breaks • ergonomic arrangement of workplaces • following marked walkways • safe storage of equipment • housekeeping • reporting accidents and incidents • other OHS practices relevant to the job and enterprise
Finished includes	• touch up and tape as required • wash image clean and dry
Printing problems and production faults include	• uneven screen coating • incorrectly stretched screen mesh • poorly registered print • inaccurate repeat measurements • poor squeegee action • insufficient print paste used • off printing • poor preparations of substrates • inappropriate fixing of dyes and pigments • poorly exposed screen • poor quality colour separations

Unit Sector(s)

Sector Textile Design and Development