



Australian Government

ICPSCP374 Operate a semi-automatic screen printing machine

Release: 1

ICPSCP374 Operate a semi-automatic screen printing machine

Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to produce a print on a range of common substrates, using semi-automatic equipment and screening techniques.

It applies to individuals working in the printing and graphic arts industry who may have to set up and operate power-driven or hand-operated screen printing machines. They may have to provide leadership and guidance to others and have some limited responsibility for the output of others.

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

Unit Sector

Screen printing

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1 Identify job requirements	1.1 Substrate is checked against job specifications with any irregularities reported and rectified where possible 1.2 Ink is checked against job specifications 1.3 Stencil is checked against job specifications
2 Prepare machine to print	2.1 Substrate position and stencil registration are adjusted according to job specifications 2.2 Ink is applied to screen in quantity required for screen size 2.3 Equipment is kept clean and spills are minimised

ELEMENT	PERFORMANCE CRITERIA
3 Produce proof print	3.1 Proof print is run off and checked for colour, strength, registration, adhesion, clarity, gloss level, drying or curing, artwork detail and other technical aspects according to job specifications 3.2 Adjustments are made according to product and machine specifications 3.3 Belt speed and energy required are set to achieve desired curing or drying properties 3.4 Appropriate approval to commence production is sought prior to commencement
4 Run job and monitor print quality	4.1 Printing speed production is adjusted to maximise quality and output 4.2 Print quality is continuously evaluated and adjusted as required 4.3 Effects of ink alterations during run are monitored and any discrepancy is notified according to enterprise procedures 4.4 Workplace documentation is completed as required 4.5 Curing and drying are constantly monitored and adjusted according to manufacturer or supplier and job specifications
5 Carry out routine user maintenance	5.1 Equipment is cleaned according to enterprise procedures 5.2 Fault conditions are identified and reported according to enterprise procedures
6 Stack production output	6.1 Output is checked for thorough drying or curing before stacking 6.2 Job identification is labelled and recorded 6.3 Job status and progress are checked against job specifications and any necessary action is taken
7 Conduct shutdown of production process	7.1 Material is transferred to correct destination in safe manner 7.2 Excess ink, screens, squeegees and flood coaters are removed and cleaned according to work health and safety (WHS) requirements and manufacturer or supplier specifications 7.3 Waste materials and chemicals are disposed of according to manufacturer or supplier specifications, regulatory requirements and enterprise procedures 7.4 Equipment and surrounding areas are cleaned according to manufacturer or supplier specifications and enterprise procedures 7.5 Tools and equipment are stored and maintained according to manufacturer or supplier to ensure ease of access and operator safety 7.6 Correct procedure for dealing with spilt chemicals is

ELEMENT	PERFORMANCE CRITERIA
	demonstrated according to WHS requirements

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1-1.3, 4.4, 4.5, 6.2, 6.3, 7.3-7.5	Establishes job requirements and correct processes from relevant information
Writing	1.1, 4.3, 4.4, 5.2, 6.2	Records information relating to job outcomes and machinery problems
Oral Communication	1.1, 3.4	Checks the progress and quality of the job with supervisor
Numeracy	2.2, 3.3, 4.1, 4.5	Uses simple mathematical calculations to determine drying time and optimum belt speed
Navigate the world of work	4.5, 5.1, 5.3, 6.2, 7.1-7.6	Complies with organisational, legal and regulatory requirements related to own work with specific reference to safety
Get the work done	1.1-1.3, 2.1-2.4, 3.1, 3.2, 4.2, 4.3, 4.5, 5.1, 5.2, 6.1, 6.3	- Understands the purposes, specific functions and key features of common digital systems and tools and operates them effectively to complete routine tasks - Takes responsibility for planning and organising own workload, identifying ways of sequencing and combining elements for efficiency - Automatically implements standard procedures for routine decisions - Recognises and takes responsibility for addressing predictable problems in familiar work contexts

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPSCP374 Operate	ICPSP374C Operate a	Updated to meet	Equivalent unit

Code and title current version	Code and title previous version	Comments	Equivalence status
a semi-automatic screen printing machine	semi-automatic screen printing machine	Standards for Training Packages	

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>

Assessment Requirements for ICPSCP374 Operate a semi-automatic screen printing machine

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Performance Evidence

Evidence of the ability to:

- complete TWO different jobs on a semi- automatic machine according to relevant job, manufacturer, enterprise and health and safety requirements.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- outline the process for recording and reporting any substrate irregularities
- describe the process for checking ink compatibility and stencil compatibility
- discuss limitations when setting the substrate position and the precautions required when applying ink to the screen
- describe the products and materials that are used to keep the equipment clean
- describe health and safety concerns when producing a semi-automatic print
- outline the quality control devices that are used to check the print standards and variables or tolerances to note when checking the print against the proof
- describe the relationship between ink film thickness and ink density and acceptable maximum and minimum ink densities
- discuss the properties that determine belt speed and heat unit settings for curing
- identify the person responsible for final approval before commencing the production run
- outline the process for quality inspection during printing and the frequency of inspection
- discuss the importance of monitoring ink during the print run
- discuss the purpose of workplace documentation
- outline health and safety concerns in relationship to monitoring drying or curing systems
- describe the maintenance that should be carried out on this machine and the importance of reporting faulty equipment

- describe stacking, storing and handling processes and the importance of labelling and recording processes
- describe the health and safety practices that must be adhered to when reclaiming screens
- describe the importance of keeping equipment and surrounding areas clean, including the cleaning of screens and squeegees
- describe the correct procedures for disposing of liquid waste
- outline the processes for storing screens to minimise damage
- identify required manuals, safety and other documentation and briefly outline the relevant information in each source.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the screen printing field of work and include access to cleaning chemicals and semi-automatic screen printing machines.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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