



Australian Government

ICPSCP341 Prepare stencil using direct electronic imaging method

Release: 1

ICPSCP341 Prepare stencil using direct electronic imaging method

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 select, prepare, process and store direct electronically imaged stencils.

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 Prepare work area	1.1 Work area is made clean and functional prior to commencement of work 1.2 Equipment is inspected to ensure it is functional and, where necessary, appropriate remedial action is taken prior to commencement of work 1.3 Chemicals are prepared, if necessary, according to work health and safety (WHS) requirements and manufacturer or supplier specifications 1.4 Appropriate coating trough (or troughs for automatic coaters) is

ELEMENT	PERFORMANCE CRITERIA
	selected, ensuring it is free of nicks and burrs
2 Prepare screen	2.1 Screen is selected according to job specifications 2.2 Chemicals are applied and removed according to WHS requirements and manufacturer or supplier specifications
3 Select direct emulsion	3.1 Emulsion is selected according to requirements for ink type, print resolution, substrate, mesh type and machine type with minimisation of waste 3.2 Emulsion is checked for expiry date and appropriate action taken 3.3 Emulsion is prepared according to WHS requirements and manufacturer or supplier specifications 3.4 Emulsion is used and dried according to manufacturer or supplier specifications
4 Process material	4.1 Coated screen is placed in direct imaging equipment according to manufacturer or supplier specifications 4.2 Direct imaging equipment is set up according to manufacturer or supplier and job specifications 4.3 Direct imaging equipment is operated according to WHS requirements, and manufacturer or supplier specifications 4.4 Exposed screen is removed and washed out according to WHS requirements and manufacturer or supplier specifications 4.5 Processed stencil or screen is inspected for processing flaws
5 Dry stencil	5.1 Processed stencil is dried according to manufacturer or supplier specifications 5.2 Backing sheet is carefully removed and stencil checked for full adhesion
6 Block out screen	6.1 Non-image areas of prepared screen are blocked out with filler suitable for ink type according to job specifications 6.2 Stencil is inspected for flaws, scum and orientation 6.3 Pinholes are spotted out with suitable filler and taped according to ink type and job specifications
7 Store screen	7.1 Prepared screen is labelled according to enterprise specifications 7.2 Prepared screen is stored in clean, dry environment according to manufacturer or supplier specifications

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	1.3, 2.1, 2.2, 3.1-3.4, 4.1-4.5, 5.1, 6.1, 7.2	- Establishes job requirements from relevant information - Identifies correct process from procedural documentation
Writing	7.1	Completes routine labelling associated with production processes and enterprise procedures
Numeracy	1.3, 4.3	Uses simple mathematical calculations to mix chemicals and calculate coating time
Navigate the world of work	1.3, 2.2, 3.3, 4.4, 4.5, 7.1, 7.2	Complies with organisational, legal and regulatory requirements related to own work, with specific reference to safety
Get the work done	1.1, 1.2, 1.4, 2.1, 3.1, 3.2, 3.4, 4.1-4.6, 5.1, 5.2, 6.1- 6.3	- 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 - Understands the purposes, specific functions and key features of common digital systems and tools, and operates them effectively to complete routine tasks

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPSCP341 Prepare stencil using direct electronic imaging method	ICPSCP341C Prepare stencil using direct electronic imaging method	Updated to meet Standards for Training Packages	Equivalent unit

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 ICPSCP341 Prepare stencil using direct electronic imaging method

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Performance Evidence

Evidence of the ability to:

- safely prepare TWO different screens using direct electronic imaging techniques according to all manufacturer, job, 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 influence that mesh count has on the final printed product
- identify the need to have a correctly tensioned screen and the effect of screen tension on screens of various mesh count or grades
- identify the degreasing or cleaning techniques that are employed prior to coating the screen
- describe the information that is contained in the material safety data sheet (MSDS) for the emulsion
- identify pollution and environmental issues that need to be considered when working with emulsions, including the need to work in a safelight area
- describe maintenance that is required on the direct projection camera
- discuss the kinds of high sensitivity emulsion that are available and state their characteristics, lifespans and areas of use
- outline the preparation method for the emulsion used
- describe the influence that the length of run and ink used have on the coating technique
- discuss the number of coats of emulsion necessary and the best method of coating the screen
- identify the best position (horizontal or vertical) for drying the screen to prevent scum and streaking
- describe the effect of heat on the emulsion during the drying process

- outline the health and safety concerns when exposing the screen
- describe the operating features of the direct projection camera
- describe the best position on the frame, the registration requirements and the scanning speed and exposure time
- summarise inputting information into the computer, manipulation of the image and how to interpret output information
- describe the effect of temperature, pressure and period of washing on the emulsion, as well as determining when washing out is complete
- describe the post-curing effect on the stencil
- outline the main information in the MSDS for a particular blackout
- identify the correct ink and stencil for the type of blackout to be used
- identify preventive measures required to minimise pinholes
- describe the means by which a screen can be identified at a later date
- 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 direct electronic imaging equipment.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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