



Australian Government

ICPSCP337 Prepare stencil using photographic capillary method

Release: 2

ICPSCP337 Prepare stencil using photographic capillary method

Modification History

Release	Comments
Release 2	This version first released with ICP Printing and Graphic Arts Training Package Version 1.1. Version created to correct mapping table information.
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 photographic capillary 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

ELEMENT	PERFORMANCE CRITERIA
	specifications
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 and process capillary film	3.1 Capillary film is selected according to requirements for ink type, print resolution, substrate and machine type with minimisation of waste 3.2 Capillary film is cut to size according to WHS requirements and manufacturer or supplier specifications with minimisation of waste 3.3 Capillary film is mounted on screen according to manufacturer or supplier specifications 3.4 Screen is dried according to manufacturer or supplier specifications and enterprise procedures 3.5 Backing sheet is removed according to manufacturer or supplier specifications
4 Process material	4.1 Screen is placed in vacuum frame with positive positioned according to manufacturer or supplier specifications and job specifications 4.2 Exposure is calculated and stencil exposed according to manufacturer or supplier specifications 4.3 Light source is positioned according to manufacturer or supplier specifications 4.4 Exposed screen is removed from vacuum frame according to WHS requirements and manufacturer or supplier specifications 4.5 Exposed screen is washed out according to WHS requirements and manufacturer or supplier specifications
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 Stencil is inspected for flaws, scum and orientation 6.2 Non-image areas of prepared screen are blocked out with filler suitable for ink type and according to job specifications 6.3 Pinholes are spotted out with suitable filler and faulty or damaged images are retouched and taped according to ink type and job specifications

ELEMENT	PERFORMANCE CRITERIA
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, 3.3-3.5, 4.1-4.5, 5.1, 6.2, 6.3, 7.1, 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	3.2, 3.4, 4.2	Uses simple mathematical calculations to determine required exposure time for the screen and product sizes
Navigate the world of work	1.3, 2.1, 2.2, 3.2, 4.4, 4.5, 7.2	Understands and complies with legislative requirements and organisational policies and procedures relevant to own role
Get the work done	1.1-1.3, 2.1, 3.1, 3.3, 4.1, 4.3-4.5, 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, adapting some functions to improve efficiency

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPSCP337 Prepare stencil using photographic capillary method	ICPSP337D Prepare stencil using photographic capillary 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 ICPSCP337 Prepare stencil using photographic capillary method

Modification History

Release	Comments
Release 2	This version first released with ICP Printing and Graphic Arts Training Package Version 1.1. Version created to correct mapping table information.
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- correctly prepare TWO different direct screens using automatic coating equipment and expose, wash and dry the screen according to all manufacturer, job, enterprise and workplace 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 work health and safety (WHS) requirements when degreasing screens
- identify the significance of the mesh count and the selection of mesh count for the application of a capillary stencil
- discuss the impact of correct tension on the screen
- identify the chemicals that are used for degreasing screens
- outline the maintenance procedures that are employed for equipment in the stencil preparation area
- describe the peculiarities of photographic capillary stencils and the selection process
- identify pollution and environmental concerns to be addressed when working with capillary films
- identify wetting agents that are used to facilitate the application of the film to the screen
- outline problems that are caused by dust on the surface of the mesh
- discuss the importance of the position of film on the screen, the problems that can occur from poor or incorrect mounting techniques and how they can be rectified

- outline WHS concerns related to exposing stencils
- describe the correct drying distance and drying time, how these are calculated and the effects of incorrect drying temperatures
- discuss the need to dry film under safelight conditions and the function and use of a light integrator
- outline the removal of the backing sheet
- describe the effect that the position, angle and distance of the light source has on the exposure process
- outline the effect that temperature, pressure and time taken has on the washing out process
- describe the importance of blotting up excess water from the stencil to prevent scum and streaking
- outline how to determine when a stencil is dry
- explain how the ink and stencil types affect the blackout
- outline preventive measures that can be taken to prevent pinholes, and the importance of taping the edge of the frame
- describe how a screen can be identified at a later date
- identify maintenance that should be carried out on exposing, washing and drying equipment
- 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 chemicals and relevant equipment.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

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