



Australian Government

ICPSCP233 Manually prepare direct emulsion stencil

Release: 1

ICPSCP233 Manually prepare direct emulsion stencil

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 safely select, prepare and store direct emulsion stencils using manual techniques.

It applies to individuals working under direct supervision and performing mainly routine tasks such as monitoring equipment and ensuring set processes are followed.

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 and equipment	1.1 Work area is made clean and functional prior to commencement of work 1.2 All equipment is inspected to ensure it is functional and, where necessary, appropriate remedial action is taken prior to commencement of work 1.3 Appropriate coating trough is 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 work health and safety (WHS) requirements and manufacturer or supplier specifications

ELEMENT	PERFORMANCE CRITERIA
	2.3 Tension of screen mesh is checked for suitability according to job specifications
3 Select emulsion	3.1 Emulsion is selected according to requirements for ink type, print resolution, substrate, mesh type and machine type 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 applied and dried according to manufacturer or supplier specifications
4 Process coated screen	4.1 Image films are appropriately positioned onto prepared screen and positioned in cleaned, prepared and appropriate exposure device 4.2 Light source is positioned according to manufacturer or supplier specifications 4.3 Exposure is calculated and stencil exposed according to manufacturer or supplier specifications 4.4 Exposed screen is removed from vacuum frame exposure device 4.5 Exposed screen is washed out after positive removal according to WHS requirements and manufacturer or supplier specifications 4.6 Processed stencil or screen is inspected for flaws and scum
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 Backing sheet is carefully removed and stencil checked for full adhesion 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 procedures 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	2.1-2.3, 3.2-3.4, 4.2, 4.3, 4.5, 5.1, 6.3, 7.2	Recognises and evaluates textual information to determine and adhere to requirements
Writing	7.1	Completes required details legibly and accurately for reference details
Numeracy	2.3, 3.2, 4.3	Recognises basic numerical data and calculates whole numbers and decimals for exposure time and measurements
Navigate the world of work	2.2, 3.3, 4.5, 7.1, 7.2	Takes personal responsibility for adherence to organisational policies and procedures relevant to own role
Get the work done	1.1-1.3, 2.1-2.3, 3.1-3.3, 4.1-4.4, 4.6, 5.2, 6.1-6.3	- Follows clearly defined instructions and sequencing and monitors own progress for the task - Responds to predictable problems and implements standard or logical solutions - Takes responsibility for routine low-impact decisions within familiar situations - Understands the purpose and some specific functions of some common digital tools used in work contexts

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPSCP233 Manually prepare direct emulsion stencil	ICPSP233C Manually prepare direct emulsion stencil	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 ICPSCP233 Manually prepare direct emulsion stencil

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Performance Evidence

Evidence of the ability to:

- prepare TWO different direct screens and TWO direct emulsion stencils using manual coating and exposure techniques according to manufacturer and job specifications, enterprise procedures and work health and safety (WHS) 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:

- explain the significance of the mesh count
- explain the effect that screen tension has on emulsion coating
- explain how to determine the emulsion suitable for the job
- explain the significance of good housekeeping in the preparation of the work area and equipment
- describe the effect that the coating trough edge has on emulsion coating
- explain the requirements for choosing emulsion for a particular job
- explain the reasons for checking the expiry date of emulsions
- determine the maximum temperature at which the emulsion can be dried
- explain the need to have good vacuum pressure in the vacuum frame
- outline the process for selecting the light source position
- explain the formula used to calculate exposure time
- explain the effects of overexposure and underexposure
- explain how the optimum exposure time is determined
- describe the effect on exposure that a white or coloured mesh has
- determine how the screen is washed out properly
- identify the characteristics that determine a good and bad stencil

- explain why the screen is dried before blocking out
- explain what determines the type of filler used for blocking out
- explain the reasons for spotting pinholes and taping the screen
- determine the WHS requirements for UV exposure light
- explain the means by which stored screens are able to 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 chemicals and relevant equipment.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

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