



Australian Government

ICPSP351C Prepare machine and drying/curing unit

Revision Number: 1

ICPSP351C Prepare machine and drying/curing unit

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to prepare a manual, semi-automatic or automatic machine for printing and set up drying and/ or curing units.
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Application of the Unit

Application of the unit	This unit requires the individual to prepare machines for printing and set up drying and/or curing units.
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Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.
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Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Inspect the screen	1.1. Screen frames are identified to determine colour sequence 1.2. Each screen frame is examined for defects and appropriate action taken 1.3. Each screen is taped as necessary 1.4. Screens are inspected against film positives noting variations in centring, registration and alignment and appropriate action is taken 1.5. Screen frame, mesh and stencil are appropriately handled according to manufacturer's/supplier's specifications to prevent damage and hazards to personnel
2. Maintain and adjust machine	2.1. Machine is inspected and routine user maintenance is carried out according to manufacturer's/supplier's specifications and enterprise procedures 2.2. All necessary periodic adjustments and user maintenance items are made at the correct times according to manufacturer's /supplier's specifications and enterprise procedures
3. Install screen frames and dry run machine	3.1. Laysheet is positioned in grippers and side-lay according to manufacturer's/supplier's specifications 3.2. Image position is established on laysheet 3.3. Screen frame is positioned in screen frame holder 3.4. Registration, alignment and centring are confirmed and screen clamps tightened to ensure no movement of the frame according to manufacturer's/supplier's specifications 3.5. Machine is run through printing cycle at the same time ensuring that substrate registers in lays and appropriate action is taken
4. Prepare and position flood bar and squeegees	4.1. Flood bar (for semi-automatic and automatic machines) and correct squeegee are assembled according to manufacturer's/supplier's specifications ensuring that flood bar is free from nicks and burrs 4.2. Squeegee blade is sharpened according to manufacturer's/supplier's specifications considering the ink system to be used 4.3. Flood bar (for semi-automatic and automatic machines) and squeegee are positioned according to job specifications with squeegee at the correct

ELEMENT	PERFORMANCE CRITERIA
	pre-determined angle 4.4. On/off contact (and peel-off if available) is adjusted to suit ink system and printing speed according to manufacturer's/supplier's specifications 4.5. Squeegee is correctly adjusted and brought into contact with the substrate
5. Set up drying/curing unit	5.1. Belt speed and energy required are set to achieve desired properties and then printing speeds are adjusted to suit 5.2. Stock is properly stacked at the end of the dryer

Required Skills and Knowledge

REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

Required skills

- OHS in relation to operating machinery such as safely switching off machinery before cleaning is started
- communication of ideas and information by taking relevant appropriate actions when screen defects are identified
- collecting, analysing and organising information by identifying screen frames to determine colour sequence
- planning and organising activities by inspecting the screens before installing the frames
- teamwork when maintaining the production process in association with others
- mathematical ideas and techniques by setting belt speed and energy levels
- problem-solving skills by inspecting machines and performing basic maintenance
- use of technology by maintaining and adjusting the machines

Required knowledge

- colour sequence
- defects that can be found when examining the screen and stencil
- variation between the positive and stencil
- OHS concerns that are there when using drying and curing units
- maintenance that is required on this equipment
- periodic adjustments that are made to the equipment and drying/curing units
- machine capabilities and characteristics
- function of the printing base
- position of the lay sheet on the printing base
- image position on the lay sheet
- type of lay sheet being used
- position of the frame in the frame holder and registering and alignment of the stencil with the image on the lay sheet
- checks that are required so as to maintain register
- characteristics of a good squeegee blade/flood coater
- significance of shore hardness of squeegee material
- length squeegee/flood coater
- positioning, fixing and adjustment of the squeegee/flood coater
- relationship of the squeegee to the flood coater
- adjustment of on/off contact distance and peel-off requirements of the screen frame
- relationship of the machine stroke to off contact/peel-off requirements
- basic maintenance requirements for the drying/curing unit

REQUIRED SKILLS AND KNOWLEDGE

- adjustments that are required to the unit before and during drying/curing
- adjustment to the unit for ink drying/curing
- effects of temperature on the substrate
- machine manuals, safety and other documentation that are relevant to this task and where they are kept and information that is included in these documents

Evidence Guide

EVIDENCE GUIDE	
The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.	
Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the following is essential: - correctly set up printing machines and drying or curing units according to job specifications - demonstrate an ability to find and use information relevant to the task from a variety of information sources - prepare a machine for printing TWO different jobs by installing the screen frame and squeegee/flood coater and setting up a drying/curing unit to achieve the desired properties, according to manufacturer's and job specifications, enterprise procedures and the listed Performance Criteria.
Context of and specific resources for assessment	Assessment must ensure: assessment may take place on the job, off the job or a combination of both of these. Off the job assessment must be undertaken in a closely replicated workplace environment.
Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit: direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: - ICPSU207C Prepare machine for operation (basic) - any basic set up units. It may be appropriate to assess this unit in conjunction with a produce print unit, for example: - ICPSP271C Manually produce basic screen prints - ICPSP273C Semi-automatically produce basic screen

EVIDENCE GUIDE

	prints • ICPSP275C Automatically produce basic screen prints • ICPSP371C Manually produce complex screen prints • ICPSP373C Semi-automatically produce complex screen prints • ICPSP375C Automatically produce complex screen prints.
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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. 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) may also be included.

<i>Type of machine</i> may include:	• commonly used hand tables/machines/dryers/curing units relative to the industry sector.
<i>Enterprise procedures</i> may include:	• tasks must be performed according to enterprise procedures.
<i>Degree of cure/drying</i> may include:	• assessing the degree of cure or drying required to obtain required product properties.
<i>Degree of autonomy</i> may include:	• working to defined procedures in consultation with other relevant persons to ensure production procedures are met.
<i>Quality standards</i> may include:	• should meet client requirements and enterprise and industry standards.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Screen Printing
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Co-requisite units

Co-requisite units		