



Australian Government

ICPPRN3310 Set up for basic lithographic printing

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 4.0.

Application

This unit describes the skills and knowledge required to set up basic lithographic printing sheet-fed and web-fed machines, including small offset for routine print jobs.

It applies to individuals working under direct supervision, who prepare material, monitor and run equipment and machinery and maintain the production process.

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

Unit Sector

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 for job	1.1 Identify job requirements 1.2 Set up required printing machinery according to manufacturer specifications and work health and safety (WHS) requirements 1.3 Confirm availability of all job components 1.4 Set up and adjust delivery systems 1.5 Add substrate to and remove substrate from process according to job specifications
2. Select and prepare inks and additives (basic)	2.1 Select inks, dyes and additives required according to job specifications and end-user requirements and confirm they meet quality requirements 2.2 Prepare inks, dyes and additives according to manufacturer

ELEMENT	PERFORMANCE CRITERIA
	specifications 2.3 Mix and prepare colour and volume of ink to match requirements of the printing process and job specifications 2.4 Approve and record formulation of ink, colour match and approved 2.5 Label, handle and store inks, dyes and additives according to manufacturer specifications
3. Set up machine for basic offset lithographic printing	3.1 Set up and adjust plate cylinder and select and install lithographic plates 3.2 Prepare and adjust blanket and blanket cylinder 3.3 Prepare and adjust impression cylinder 3.4 Set up and adjust inking system 3.5 Set up and adjust dampening system
4. Conduct proof run	4.1 Operate machine according to manufacturer specifications and enterprise procedures to produce specified proof 4.2 Inspect and test proof as required according to enterprise procedures 4.3 Seek client approval and authority prior to the production run as required 4.4 Interpret results and make adjustments according to product and machine specifications as required

Foundation Skills

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

Skill	Description
Writing	Enters routine data associated with production processes and enterprise procedures
Numeracy	Interprets and analyses a range of mathematical information used in familiar and routine tasks
Self-management	- Identifies and follows explicit and implicit protocols and meets expectations associated with own role - Complies with WHS and enterprise procedures relevant to own role

Teamwork	• Cooperates with others as part of familiar routine activities, and contributes to specific activities requiring joint responsibility and accountability • Identifies what to communicate, with whom and how, in routine work situations
Planning and organising	• Organises own workload under supervision, identifying ways of sequencing and combining elements for greater efficiency • Plans, identifies and assembles resources required to complete tasks
Problem solving	• Responds to predictable problems and implements standard or logical solutions
Technology	• Follows routine procedures for using digital technology by reading data from electronic monitoring and control systems

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Delivery systems must include either:	• reel or • sheet
Setting up and adjusting must include either:	• unwind and rewind reels • webbing procedures and web control systems • splicing reels • folder and sheeter or • feeder and delivery • registration systems • sheet pick-up and transportation, control and transfer systems

Unit Mapping Information

Supersedes and is equivalent to ICPPRN331 Set up for basic lithographic printing.

Links

Companion Volume Implementation Guide is found on VETNet -

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

Assessment Requirements for ICPPRN3310 Set up for basic lithographic printing

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Performance Evidence

The candidate must demonstrate the ability to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including evidence of the ability to:

- set up for two basic lithographic printing jobs according to manufacturer specifications and enterprise procedures.

In the course of the above the candidate must:

- demonstrate use of control, monitoring and data entry systems
- demonstrate all safety devices on the machine.

Knowledge Evidence

The candidate must be able to demonstrate knowledge to complete the tasks outlined in the elements, performance criteria and foundation skills of this unit, including knowledge of:

- enterprise procedures, manufacturer specifications, and work health and safety (WHS) requirements for:
 - setting up and operating the machine, in-feed and transfer systems
 - webbing up the machine in reel systems
 - the rewind of the reel delivery system
 - handling inks and additives
- enterprise escalation procedures and required personnel, including those who pass colour prior to running the job and have final say in job approval
- job documentation or production control system, and procedures if vital information is missing
- checks required prior to set-up, including availability of materials
- register checks, and machine adjustments that may cause mis-register
- procedures and steps for:
 - identifying grip edge of the plate and printing side of material
 - determining sheet position before transportation to printing unit
 - modifying ink that is light and adjusting ink colour and consistency

- determining cylinder (plate, blanket and impression) specifications for the job
- proof testing the machine
- effect on the job of:
 - printing plate cylinder being overpacked or not cleaned prior to plate fitting
 - incorrect web tension on the print and the rewind of the machine
 - side lay selection on the job
 - excessive jogging on the stack
 - an incorrectly set dampening system
- the purpose or function of:
 - nip rollers
 - using a two-sheet cut or setting sheet up in middle of the machine
 - slowdown devices in delivery
 - consistently tensioning plates
- plate installation, features assisting installation and actions or tools likely to damage the plate
- types of web splices required for the job
- machine's method of detecting missing or late sheets
- reasons for applying spray powder and effect of excessive use
- criteria to check in ink for job suitability and initial print prior to running
- environmental concerns and regulations concerning inks and additives
- ink profiles and their variance across the machine
- optimum ink duct sweep
- precautions for UV drying on the ink film
- methods to minimise waste during make ready
- adjustments required to position the image laterally and circumferentially
- manufacturer manuals, enterprise procedures and work health and safety documentation, including their location and purpose.

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 printing field of work and include access to:

- special purpose tools, equipment and materials
- lithographic machine.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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