



Australian Government

ICPPRN442 Produce specialised pad printed product

Release: 1

ICPPRN442 Produce specialised pad printed product

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 operate a pad printing machine to produce specialised printed products that meet required quality standards. Any production problems are rectified with minimum downtime, and the machine is correctly shut down and cleaned according to work health and safety (WHS) guidelines.

It applies to individuals working as print machinists in the printing and graphic arts industry. They prepare material, set up, monitor and operate equipment and machinery, apply solutions to a defined range of problems associated with the print medium, and analyse and evaluate information from a variety of sources. They may also provide leadership and guidance to others with 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

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. Maintain specialised pad printing process	1.1 Location of objects into fixtures is monitored, evaluated and adjusted if necessary 1.2 Printing plates condition is monitored and evaluated to ensure quality of printed product meets the approved proof standard 1.3 Printing pads condition is monitored, evaluated and maintained to ensure quality of printed product meets the approved proof standard 1.4 Spatulas and doctor blades are monitored, evaluated and

ELEMENT	PERFORMANCE CRITERIA
	adjusted to ensure quality of printed product meets the approved proof standard OR 1.5 Ink cups are monitored, evaluated and adjusted to ensure quality of printed product meets the approved proof standard 1.6 Printing ink viscosity is monitored, evaluated and adjusted to ensure quality of printed product meets the approved proof standard
2. Maintain in-line systems	2.1 In-line loading is monitored, evaluated and adjusted to ensure quality of printed product meets the approved proof standard 2.2 In-line pre-treatment is monitored, evaluated and adjusted to ensure quality of printed product meets the approved proof standard 2.3 In-line drying is monitored, evaluated and adjusted to ensure quality of printed product meets the approved proof standard
3. Maintain production process	3.1 Production process is operated in association with fellow workers and according to enterprise procedures and planned daily schedule 3.2 Production is maintained according to work health and safety (WHS) requirements, manufacturer's specifications and enterprise procedures 3.3 Manual and/or automatic control is used as required according to job specifications 3.4 Performance is monitored and verified using the process control system according to enterprise procedures 3.5 Ink performance, colour, register and position of print are monitored and adjusted throughout production run 3.6 Production difficulties are anticipated and preventive action is taken to prevent occurrence by timely intervention 3.7 Process adjustments to eliminate problems are reported according to enterprise procedures 3.8 Waste is sorted according to enterprise procedures
4. Tune and adjust machinery	4.1 Idiosyncrasies of machines are reviewed and adjustments or tuning undertaken to compensate, or to exploit the idiosyncrasy, within manufacturer's specifications 4.2 Options are assessed to determine most effective/efficient method of production, ensuring highest quality and yield from

ELEMENT	PERFORMANCE CRITERIA
	machinery 4.3 Test run confirms correct options and settings, or need for further adjustment or tuning to meet quality standards 4.4 Options and recommendations are documented for future reference according to enterprise procedures 4.5 Instruction on new practices is provided to machine operator or finisher, if required
5. Troubleshoot machinery and material problems	5.1 Corrective or preventive action is recommended and implemented where appropriate 5.2 Changes are communicated to relevant personnel in a logical and easily understood manner 5.3 Changes are monitored to confirm improvement to production efficiency 5.4 Ongoing problems are reported according to enterprise procedures
6. Conduct shutdown of production process	6.1 Correct shutdown sequence is followed according to manufacturer's specifications and enterprise procedures 6.2 Shutdown is conducted in association with fellow workers and in compliance with WHS requirements 6.3 Unused ink is correctly labelled and stored according to manufacturer's/supplier's specifications and enterprise procedures 6.4 Solid and liquid waste is removed from operating area and recycled or disposed of, where required, according to regulatory requirements and enterprise procedures 6.5 All product is removed from operating area 6.6 Machine faults requiring repair are identified and reported, according to enterprise procedures 6.7 Repair/adjustment is verified prior to resumption of operations

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	3.2, 3.3, 4.1, 6.1, 6.3	Recognises and interprets text to establish job requirements from information contained in instructions, relevant procedures and specifications
Writing	3.7, 4.4, 4.5, 5.1, 5.2, 5.4, 6.3, 6.6	Completes records, forms and other documents accurately, and according to workplace requirements
Oral Communication	3.1, 3.7, 4.2, 4.5, 5.1, 5.2, 5.4, 6.2, 6.6	Participates effectively in discussions using appropriate vocabulary, and questioning and listening skills
Navigate the world of work	3.1, 3.2, 3.4, 3.7, 3.8, 4.4, 5.4, 6.1-6.4, 6.6	Complies with legislative requirements and follows organisational policies and procedures relevant to own role
Interact with others	3.1, 3.7, 4.2, 4.5, 5.1, 5.2, 5.4, 6.2, 6.6	- Collaborates and cooperates with others to achieve joint outcomes - Contributes to workgroup discussions using accepted conventions - Selects and uses appropriate communication practices when reporting issues
Get the work done	1.1-1.6, 2.1-2.3, 3.1-3.6, 3.8, 4.1-4.3, 5.1-5.4, 6.1-6.7	- Determines priorities and sequences steps involved in familiar tasks and identifies, and assembles required resources - Recognises and anticipates an increasing range of familiar problems, their symptoms and causes, actively looking for early warning signs and implementing contingency plans - May invest time in developing and evaluating several options before making a final choice, identifying some key principles that may be relevant in future situations - Reads data from electronic monitoring and control systems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPPRN442 Produce specialised pad printed product	ICPPR442C Produce specialised pad printed product	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 ICPPRN442 Produce specialised pad printed product

Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- operate a pad printing machine ensuring an efficient specialised production flow that maintains product quality standards, including rectifying production problems with minimum downtime, and shutting down and cleaning the machine according to work health and safety (WHS) guidelines
- produce TWO complex pad printing jobs (if possible on different substrates) according to job specifications, enterprise procedures and performance criteria.

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:

- identify major WHS concerns when operating this machine
- locate where Material Safety Data Sheets (MSDS)s are stored and describe the information they contain
- explain how colour density of a light image on a dark substrate can be improved by selecting a different machine cycle mode
- explain how to select appropriate machine cycle mode to provide the highest production output for a particular product
- describe special cycle modes available on the machine and their application
- describe how to determine that ink has been mixed to the correct viscosity
- explain how to correct ink viscosity during production
- list causes of unreleased ink remaining on the printing pad, and how to identify them
- describe the effect of adding a catalyst on the pot life of ink and other factors that affect pot life
- explain how to recognise a damaged pad
- demonstrate the correct method of cleaning a pad during production

- describe the effect of different pad shapes for different colours In multi-coloured printing
- determine the time ink should take to cure before scratch and adhesion tests can be performed
- describe the method used to check for correct pre-treatment of polypropylene during production
- explain how to ensure correct drying conditions for the product
- describe the visible effects on the image if ink viscosity is incorrect
- identify the cause of incorrect registration and how to prevent its recurrence
- explain what can cause a fine coating of ink over the whole cliché surface
- locate machine manuals, safety and other documentation relevant to this task, and outline the information in them.

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, including a pad printing machine.

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>