



Australian Government

ICPPRN422 Produce specialised gravure printed product

Release: 1

ICPPRN422 Produce specialised gravure 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 gravure press, ensuring an efficient production flow for specialised jobs while maintaining product quality standards. Any production problems are anticipated and rectified with minimum downtime. 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 gravure printing process	1.1 Gravure cylinder condition is monitored, evaluated and adjusted to ensure quality of printed product meets the sample sheet standard 1.2 Gravure impression roller condition is monitored, evaluated and maintained to ensure quality of the specialised printed product meets the sample sheet standard 1.3 Gravure inking system and doctor blade are monitored, evaluated and adjusted to ensure quality of specialised printed

ELEMENT	PERFORMANCE CRITERIA
	product meets the sample sheet standard 1.4 Drying systems are monitored, evaluated and adjusted to ensure quality of specialised printed product meets the approved proof standard 1.5 In-line printing/converting/binding/finishing processes are monitored, evaluated and adjusted to ensure quality of specialised product meets the approved proof standard
2. Maintain specialised production process	2.1 Production process is operated in association with fellow workers and according to enterprise procedures and planned daily schedule 2.2 Production is maintained according to WHS requirements, manufacturer's specifications and enterprise procedures 2.3 Manual and/or automatic control is used according to job specifications 2.4 Performance is monitored and verified using the process control system according to enterprise procedures 2.5 Ink performance, colour, register and position of print are monitored, evaluated and adjusted throughout production run 2.6 Production difficulties are anticipated and preventive action is taken to prevent occurrence by timely intervention 2.7 Process adjustments to eliminate problems are reported according to enterprise procedures 2.8 Waste is sorted according to enterprise procedures
3. Tune and adjust machinery	3.1 Idiosyncrasies of machines are reviewed and adjustments or tuning undertaken to compensate, or exploit the idiosyncrasy within manufacturer's specifications 3.2 Test run confirms correct options and settings or need for further adjustment or tuning to meet quality standards 3.3 Options and recommendations are documented for future reference according to enterprise procedures 3.4 Instruction on new practices is provided to machine operator or finisher, if required

ELEMENT	PERFORMANCE CRITERIA
4. Troubleshoot machinery and material problems	4.1 Corrective or preventive action is recommended and implemented where appropriate 4.2 Changes are communicated to relevant personnel in a logical and easily understood manner 4.3 Changes are monitored to confirm improvement to production efficiency 4.4 Ongoing problems are reported according to enterprise procedures
5. Conduct shutdown of production process	5.1 Correct shutdown sequence is followed according to manufacturer's specifications and enterprise procedures 5.2 Shutdown is conducted in association with fellow workers and in compliance with WHS requirements 5.3 Unused ink is correctly labelled and stored according to manufacturer's/supplier's specifications and enterprise procedures 5.4 Solid and liquid waste is removed from operating area and recycled or disposed of, where required, according to regulatory requirements and enterprise procedures 5.5 All product is removed from operating area 5.6 Machine faults requiring repair are identified and reported to designated person according to enterprise procedures

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	2.2, 2.3, 3.1, 3.2, 5.1, 5.3	Recognises and interprets text to establish job requirements from information contained within relevant procedures and specifications
Writing	2.7, 3.3, 4.4, 5.3, 5.6,	Completes records, forms and other documents accurately and according to workplace requirements
Oral Communication	2.1, 2.7, 3.4, 4.1, 4.2, 4.4, 5.2, 5.6,	Participates effectively in discussions using appropriate vocabulary, and questioning and listening skills

Navigate the world of work	2.1, 2.2, 2.4, 2.5, 2.7, 2.8, 3.3, 4.4, 5.1-5.4, 5.6,	Complies with legislative requirements and follows organisational policies and procedures relevant to own role
Interact with others	2.1, 2.7, 3.4, 4.1, 4.4, 5.2, 5.6,	- Collaborates and cooperates with others to achieve joint outcomes - Contributes to work group discussions using accepted conventions
Get the work done	1.1-1.5, 2.-2.8, 3.1, 3.2, 5.1-	- Determines priorities and sequences steps involved in clearly defined, familiar tasks; and identifies and assembles required resources - Makes rapid decisions when required, drawing on in-depth understanding of a situation and decision-making experience - Responds to predictable problems and implements standard or logical solutions related to role in immediate work environment - Reads data from electronic monitoring and control systems

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPPRN422 Produce specialised gravure printed product	ICPPR422C Produce specialised gravure 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 ICPPRN422 Produce specialised gravure 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 gravure press ensuring production flow that maintains product quality standards and minimises downtime from production problems
- shut down and clean a gravure press according to work health and safety (WHS) guidelines
- monitor production output and make necessary adjustments to maintain print quality on a gravure machine while producing a complex print on TWO occasions (if possible using different substrates and, if possible, including at least two in-line processes) according to job specifications, enterprise procedures.

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:

- describe what can cause reel to wander
- outline what can cause the web to break at the unwind unit
- explain the difference between a 'flying paster' and 'zero speed' type reel-stand
- outline the print fault that results from the reel being run out of centre
- list possible faults in the unwind section that can cause a web break
- identify WHS risks associated with rewinding and sheeting
- identify the safety feature in the delivery system for when the web jams up
- explain why the sheet cut-off might wander
- describe the effect of poorly adjusted nip rollers when rewinding and sheeting
- explain the effect of a build-up of ink on the impression cylinder on printed product
- list causes of ink foaming in the ink tray
- outline the effect of too much reducer in ink

- describe what action can reduce wear of the doctor blade
- explain why all solvents need to be removed from the final ink film
- describe link between driers and set off and marking
- explain the cause of substrate distortion
- describe the effect in the chillers, if the drying temperature was too low
- identify the effect of incorrect drying temperature on the finished product
- outline the effect of inadequate communication within the work team on a gravure printing machine
- list safety features within the organisation that aid in maintaining effective production
- describe ramifications if machine guards are removed and/or micro switches are disconnected on a machine
- identify who is legally responsible for the removal of machine guards and/or disconnection of micro switches
- demonstrate knowledge of the most accurate method of checking register during a production run
- explain why it is necessary to take immediate action when production problems are anticipated
- describe what to do to eliminate further processing of unacceptable printed product
- explain what happens to the substrate if relative humidity is increased in the press room
- list procedures to care for a newly delivered substrate to the press room
- demonstrate knowledge of how to correctly sort waste
- outline advantages of keeping reusable waste
- identify industry standards to enhance effective communication with clients
- list necessary procedures clients should follow to approve a printed product
- explain when to call service personnel to correct a machine problem
- outline enterprise procedures to report any machine operating problems
- describe consequences if correct shutdown procedures are not followed
- explain why it is necessary for correct shutdown procedures to be conducted with fellow workers
- list advantages of proper labelling and storage of excess inks and materials
- explain why printed product should be clearly labelled prior to removal from the press room
- outline any additional operations required for printed reels after they are removed from the printing machine
- describe how the printed job should be stored after it is removed from the printing machine
- explain how completed records are used in final analysis of the job
- describe benefits of comprehensive records when considering production of future jobs
- locate machine manuals, safety and other documentation relevant to this task and outline information included in these documents.

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 gravure 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>