



Australian Government

Department of Education, Employment and Workplace Relations

ICPPR214C Produce basic flexographic printed product

Revision Number: 1

ICPPR214C Produce basic flexographic printed product

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to produce a basic flexographic printed product.
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Application of the Unit

Application of the unit	This unit requires the individual to operate either a reel or sheet-fed flexographic press ensuring an efficient routine production flow that maintains product quality standards. Any production problems are rectified with minimum downtime. The machine is correctly shut down and cleaned according to OHS guidelines.
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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. Maintain routine operation of reel system (OR Element 2)	1.1. Job requirements are read and interpreted from job documentation or production control system 1.2. Set up is carried out correctly in minimum time with minimum wastage 1.3. Prior inspections are completed and signed off
2. Maintain routine operation of sheet system (OR Element 1)	2.1. Plate height and relief are measured 2.2. Plates are trimmed and prepared according to mounting system requirements 2.3. Mounting adhesive is selected to achieve correct PCD (Pitch Circle Diameter) of specified plate cylinders and gears
3. Maintain basic flexographic printing process	3.1. Plate cylinders/seamless sleeves are selected, cleaned and prepared and correct gears are mounted 3.2. Sleeves and correct gears on mandrels are selected, cleaned, prepared and mounted to meet routine job specifications 3.3. TIR (Total Indicated Runout) is checked to be within specified tolerances on plate cylinders 3.4. Selected mounting adhesive is applied to plate cylinders
4. Maintain routine production process	4.1. Plates are prepared and mounted on cylinders using pin mount or microdot systems or sleeves according to chart number/print direction OR 4.2. Plate mounting sheet is prepared to meet routine job specifications AND 4.3. Plates are mounted to position on plate mounting sheet or camera targets AND 4.4. Plate mounting sheet is installed and tensioned onto plate cylinder to specified chart number/print direction 4.5. Plates are proofed and each plate cylinder is checked for register 4.6. Flexographic plates are trimmed and taped down according to printing press requirements
5. Identify and rectify faults	5.1. Problem in flexographic machine operation is identified and reported according to enterprise procedures 5.2. Adjustments or corrections are carried out according to specified procedures and consistent with operator's skill level

ELEMENT	PERFORMANCE CRITERIA
	5.3. Flexographic machine operation is checked to ensure correct operation 5.4. Machine faults requiring repair are identified and reported to designated person 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 OHS requirements 6.3. Reels and cores are removed from press if web-fed 6.4. Unused ink is drained back to containers and correctly labelled and stored according to manufacturer's/supplier's specifications and enterprise procedures 6.5. Solid and liquid waste is removed from operating area and recycled or disposed of, where required, according to regulatory requirements and enterprise procedures 6.6. All product is removed from operating area
7. Clean and wash up printing machine at end of print run	7.1. Cylinders or sleeves, plate and roller surfaces are cleaned ready for next run 7.2. Inking rollers and doctor blades or chamber blade systems are cleaned with correct solvents according to OHS guidelines 7.3. Ink pumps, tanks and hoses are cleaned correctly 7.4. Impression rollers/central impression and press rollers are cleaned 7.5. In-line printing/converting/binding/finishing units are cleaned ready for next run 7.6. Reel or sheet-feed transportation and delivery systems are disengaged and cleaned ready for next run 7.7. Press is lubricated and protected according to duration of shutdown 7.8. Production records or other documentation are accurately completed where required by enterprise procedures

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 providing feedback to internal and external clients about printing, in-line processes and job specifications
- collecting, analysing and organising information by collating details of job and machine specifications and printing processes to ensure efficient production
- planning and organising activities by coordinating sequences for printing and wash-up
- teamwork when communicating with work team members and workers involved in prior and subsequent processes to ensure efficient production
- mathematical ideas and techniques by calculating consumables requirements
- problem-solving skills by identifying print problems and correcting during print run
- use of technology by using monitoring systems, understanding their output and feeding into production management systems

Required knowledge

- reel transportation and delivery
- OHS concerns that are there when loading and handling heavy reels
- determining the printing side of the substrate
- effect on the print of excessive tension on the unwinding reel
- correct splicing of the web
- sheet transportation and delivery
- OHS factors that need to be considered when operating the sheet transportation and delivery systems
- fanning the sheets before loading into the press
- setting and check to be made to the double sheet detector during the print run
- implications if the web is not spliced correctly
- components that can be adjusted to ensure correct delivery
- effect that excessive suction could have on the slow-down wheels
- flexographic printing operations
- frequency the quality of the product should be assessed
- action that can taken if the print was filling in when printing
- the effect dirt would have under the doctor blade on the print
- doctor blade oscillation
- action that can taken if the ink in the duct is foaming
- signs of wear in the image area of the plate

REQUIRED SKILLS AND KNOWLEDGE

- in-line processes
- OHS concerns for the in-line component of the press
- frequency the in-line components of the job should be examined
- quality control and problem solving
- monitoring to ensure quality
- precautions that should be taken to ensure that the rewound product is of consistent acceptable quality
- identifying printed material that is not of an acceptable standard
- marking of product that is deemed unacceptable by the operator
- consultation if there was a problem with the print that was not able to be fixed by the operator
- location of information concerning the correct operation of the machine
- shut down and wash up the press
- dangers that exist from solvents and solutions used to clean the inking system, plate and the press
- methods that are used to ensure proper storage of the plates following printing
- parts of the machine that should be thoroughly cleaned following the print run
- components that are to be inspected for wear following the print run
- records that are important for following or repeat prints
- machine manuals and safety 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 ability to:

- operate either a reel or sheet-fed flexographic press ensuring an efficient production flow that maintains product quality standards. Any production problems are rectified with minimum downtime. The machine is correctly shut down and cleaned according to OHS guidelines
- demonstrate use of computerised control, monitoring and data entry systems if available and appropriate
- demonstrate an ability to find and use information relevant to the task from a variety of information sources
- produce TWO basic flexographic printing jobs (if possible including at least ONE in-line process) according to job specifications, enterprise procedures and the Performance Criteria
- evidence for assessment may be gathered from assessment of the unit of competency alone or through an integrated assessment activity.

Context of and specific resources for assessment

Assessment must ensure:

- assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment
- flexographic press.

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:

EVIDENCE GUIDE

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| | <ul style="list-style-type: none">• ICPSU201C Prepare, load and unload reels and cores on and off machine• ICPSU202C Prepare, load and unload product on and off machine• ICPSU208C Operate and monitor machines (basic)• ICPPR211C Mount and proof flexographic plates for basic printing• ICPPR313C Set up for basic flexographic printing. |
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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>Routine</i> may include:	• routine within this context relates to the set up and production of print runs. The set up of equipment and production is straightforward and does not involve a significant amount of deviation from using standard equipment settings. In this sense, routine does not refer to a job that an individual might repeat on a regular basis.
<i>Machines</i> may include:	• a range of stack, in-line and central impression flexographic printing machines with manual, semi-automated, fully automated or computerised process control.
<i>Inks/coatings</i> may include:	• range of standard inks commonly used in 4-colour printing.
<i>In-line processes</i> may include:	• minor processes that are integral to this competency can include basic in-line operations such as perforating, numbering, date coding, slitting that do not in themselves constitute another defined unit of competency. Where a major in-line process is defined as a separate competency (eg flat-bed cutting, folding) it should be assessed as such.
<i>Colour matching systems</i> may include:	• use of visual colour assessment and densitometry to match basic standard colours under controlled lighting conditions.
<i>Design</i> may include:	• 4 colours, simple graphics and text. Minor variation in registration and position.
<i>Substrate types</i> may include:	• range of substrates within the major categories of paper, pressure sensitive material, board, corrugated board, plastics and related films, or metal.
<i>Substrate handling</i> may include:	• wide or narrow reel or large or small sheet handling systems.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Printing
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Co-requisite units

Co-requisite units		