



Australian Government

Department of Education, Employment and Workplace Relations

ICPPR242C Produce basic pad printed product

Revision Number: 1

ICPPR242C Produce basic pad printed product

Modification History

Not applicable.

Unit Descriptor

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

Application of the unit	This unit requires the individual to operate a pad printing machine 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 pad printing process	1.1. Location of objects into fixtures is monitored and adjusted if necessary 1.2. Printing plate condition is monitored to ensure the quality of printed product meets the standard of the approved proof 1.3. Printing pad condition is monitored and maintained to ensure the quality of printed product meets the standard of approved proof 1.4. Spatula and doctor blade are monitored and adjusted to ensure quality of printed product meets the standard of approved proof OR 1.5. Ink cup is monitored and adjusted to ensure quality of printed product meets the standard of approved proof 1.6. Printing ink viscosity is monitored and adjusted to ensure quality of printed product meets the standard of approved proof
2. Maintain manual pre- and post-treatments	2.1. Manual loading is monitored and adjusted to ensure quality of printed product meets the standard of approved proof 2.2. Manual pre-treatment is monitored and adjusted to ensure quality of printed product meets the standard of approved proof 2.3. Drying racks are monitored and adjusted to ensure quality of printed product meets the standard of approved proof
3. Maintain routine production process	3.1. Production process is operated in association with fellow workers and according to company specifications and planned daily schedule 3.2. Production is maintained within OHS requirements and company and manufacturer's specifications 3.3. Manual and/or automatic control is used as per specification 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

ELEMENT	PERFORMANCE CRITERIA
	intervention 3.7.Process adjustments to eliminate problems are reported according to enterprise procedures 3.8.Waste is sorted according to enterprise procedures
4. Identify and rectify faults	4.1.Problem in pad printing machine operation is identified and reported according to enterprise procedures 4.2.Adjustments or corrections are carried out according to specified procedures and consistent with operator's skill level 4.3.Pad printing machine operation is checked to ensure correct operation 4.4.Faulty performance of equipment is identified and 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 OHS requirements 5.3.Unused ink is correctly labelled and stored according to manufacturer/supplier 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 5.7.Repair/adjustment is verified prior to resumption of operations
6. Clean and wash up printing machine at end of print run	6.1.Plates and pads are cleaned ready for next run 6.2.Inking system is washed up ready for next run, and liquid waste is disposed of according to company and regulatory requirements 6.3.Pre- and post-treatment units are cleaned ready for next run 6.4.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

- major OHS concerns when operating this machine
- where the MSDSs are stored and what information do they contain
- different machine cycle modes
- how the colour density of a light image on a dark substrate can be improved by selection of a different machine cycle mode
- selecting the appropriate machine cycle mode to provide the highest production output for a particular product
- correct ink viscosity
- correcting ink viscosity during production
- causes of unreleased ink remaining on the printing pad and how you identify them
- recognising a damaged pad
- correct method of cleaning a pad during production
- pre- and post-treatment requirements
- simple pre-treatment that is commonly required for injection-moulded objects
- period the ink on the job takes to cure before scratch and adhesion tests can be performed
- print problem identification and correction
- effects that will be visible in the image if the ink viscosity is incorrect
- adjusting the machine to correct a shift in the image position on the product
- in Machine manuals, safety and other documentation are relevant to this task and

REQUIRED SKILLS AND KNOWLEDGE

where are they 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 a pad printing machine ensuring an efficient 1-colour 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 pad printing jobs (if possible on different substrates) to meet 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
- a pad printing machine.

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:

- ICPSU202C Prepare, load and unload product on and

EVIDENCE GUIDE

	off machine • ICPSU208C Operate and monitor machines (basic) • ICPPR341C Set up for basic pad 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>Inks/coatings</i> may include:	range of standard inks commonly used in single colour printing.
<i>Pre and post-treatment processes</i> may include:	range of pre- and post-treatment processes commonly used in pad printing.
<i>Machines</i> may include:	a range of pad printing machines with manual, semi-automated or computerised operation.
<i>Colour matching systems</i> may include:	use of visual colour assessment to match basic standard colours under controlled lighting conditions.
<i>Design</i> may include:	single colour, simple graphics and text. Minor variations in registration and position.
<i>Substrate types</i> may include:	range of substrates within the major categories of paper, wood, glass (ceramics), plastics, metal.
<i>Substrate handling</i> may include:	manual handling.
<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.

Unit Sector(s)

Unit sector	
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Competency field

Competency field	Printing
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Co-requisite units

Co-requisite units		