Australian Government

Department of Education, Employment and Workplace Relations

ICPPR493C Set up and monitor in-line printing operations

Revision Number: 1

ICPPR493C Set up and monitor in-line printing operations

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to set up and monitor in-line printing operations.

Application of the Unit

Application of the unit	This unit requires the individual to set up either a reel- or sheet-fed machine that incorporates one or a number of defined in-line operations. The individual will conduct a proof run and adjust settings to ensure acceptable production speed and quality are attained and maintained.

Licensing/Regulatory Information

Not applicable.

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.

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.

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Confirm job specifications	1.1. Job requirements are read and interpreted from job documentation or production control system 1.2. Set up is planned and carried out correctly in minimum time and with minimum wastage 1.3. Availability of all job related components is checked
2. Set up machine for in-line operation	2.1. ***Substrate*** transportation system is set up according to job specifications 2.2. Set off/marking prevention devices are set up and adjusted according to job specifications 2.3. Appropriate ***image carrier***/cutting device is selected and secured to the unit 2.4. Impression is adjusted and set according to job specifications 2.5. Image transfer or inking devices are adjusted and set according to job specifications
3. Conduct proof run	3.1. Material to be used for proof is organised correctly 3.2. ***Machine*** is operated according to manufacturer's specifications and enterprise procedures to produce a specific proof 3.3. Proof is visually inspected and/or tested or laboratory testing is organised according to enterprise procedures 3.4. Production does not commence without client approval or authority where appropriate 3.5. Results are interpreted and adjustments made according to product and machine specifications
4. Maintain and monitor production process	4.1. Production process is operated and monitored in association with fellow workers and according to enterprise procedures and planned daily schedule 4.2. Product is monitored and minor adjustments are made to ensure quality of output is maintained 4.3. Major adjustments to process are identified and reported to designated personnel according to enterprise procedures 4.4. Faulty performance of equipment is identified and reported to designated person according to enterprise procedures 4.5. Waste is sorted according to enterprise procedures
5. Conduct shutdown of	5.1. Correct shutdown sequence is followed according to

ELEMENT	PERFORMANCE CRITERIA
production process	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/coating, if used in process, is correctly labelled and stored according to manufacturer's/supplier's specifications and enterprise procedures 5.4. All product is removed from operating area 5.5. Machine faults requiring repair are identified and reported to designated person according to enterprise procedures 5.6. Repair/adjustment is verified prior to resumption of operations
6. Clean and wash up	6.1. Cylinders, image carriers/cutting devices and roller surfaces are cleaned ready for next run 6.2. Image carriers/cutting devices are removed and stored according to manufacturer's/supplier's specifications and enterprise procedures 6.3. Inking system and ***additional units*** are washed up ready for next run 6.4. Liquid waste is disposed of according to enterprise procedures and regulatory requirements 6.5. ***In-line*** units are cleaned ready for next run 6.6. Substrate feed, transportation and delivery systems are disengaged and cleaned ready for next run 6.7. 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 regarding in-line processes and job specifications
- collecting, analysing and organising information by collecting and assessing data regarding printing operations, machine specifications, their characteristics and how they interact
- planning and organising activities by organising production sequences to maximise efficiency
- teamwork when communicating with work team members involved in prior and subsequent processes to ensure efficient production
- mathematical ideas and techniques by calculating substrate requirements and printing pressures
- problem-solving skills by monitoring product and making minor adjustments to ensure quality of output is maintained
- use of technology by using monitoring equipment and interpreting readouts

Required knowledge

- important information that you would acquire from the job ticket
- action taken if vital information were missing from the job ticket
- devices that are used to control the substrate in the in-line unit
- problems that could develop from an incorrectly set transportation section
- OHS concerns that need to be considered when setting up the in-line unit
- others units of the machine that would need to be set up prior to the in-line unit
- parts of the in-line unit that are responsible for position
- precautions that need to be observed when setting the impression
- checks that you need to perform after a proof run on any in-line operation or process
- notification if there was a problem with any aspect of the job during make ready
- methods that are used to minimise waste during make ready
- signs of wear of the image carrier
- marking printed material by the operator that is not of an acceptable standard
- print faults that would the operator be identifying during the print run
- frequency quality of the product should be assessed
- OHS requirements that should be observed during machine shutdown
- areas of the in-line unit that may require repair
- determining the workflow of the product

REQUIRED SKILLS AND KNOWLEDGE
• responsibility for the repair of the machine • procedures that need to be observed when storing image carriers or cutting devices • OHS concerns that should be observed when storing cutting devices • requirements for the disposal of liquid waste? • specific components of the in-line that need to be cleaned thoroughly • effect on machine production if components were not cleaned thoroughly following the print run • outcome of the operator not completing production information on the job ticket • records that must be completed in the event of a reprint or repeat print run

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: • set up and monitor in-line printing operations that would tend to be complex in nature and incorporated into other printing processes • set up and monitor one or more in-line processes on TWO occasions according to job specifications, enterprise procedures and the Performance Criteria • evidence for assessment can be gathered from a combination of activities of a number of units of competency.
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 • reel or sheet-fed machine that incorporates an in-line process or operation described in the Range Statement.
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.

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.	
Substrate may include:	• range of substrates within the major categories of paper, pressure sensitive material, board, corrugated board, plastics and related films or metal.
Image carrier may include:	• a device where the selected areas and surface are prepared in such a way as to transfer ink or image to the substrate.
Machines may include:	• range of stack, in-line configuration and central impression printing machines with manual, semi-automated, fully automated or computerised process control. Machines can incorporate one or more in-line process operations in addition to the conventional printing processes.
Additional units may include:	• includes any ancillary unit that is used in the production of the printed product eg dampening units, ink pumps, tanks and hoses.
In-line processes may include:	• processes that are integral to this competency may include in-line operations such as: • numbering • perforating • slitting • embossing • cutting and creasing • thermal transfer • scoring/top cutting • die cutting/stripping • gluing • sprocket hole punching • over printing • ink jet.
Design may include:	• the in-line process or operation forms an integral part of the product being produced and

RANGE STATEMENT	
	would enhance, give a specific shape or provide additional features to the work. The combination of print intricacy and in-line features would be considered to be complex.
Substrate handling may include:	• wide and narrow reel- and sheet-fed systems.

Unit Sector(s)

Unit sector	

Competency field

Competency field	Printing

Co-requisite units

Co-requisite units		