Australian Government

Department of Education, Employment and Workplace Relations

ICPPR411C Mount and demount flexographic plates for complex printing

Revision Number: 1

INDUSTRY SKILLS COUNCILS

Creating Australia's Future

ICPPR411C Mount and demount flexographic plates for complex printing

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to mount and demount flexographic plates for non-routine printing.

Application of the Unit

Application of the unit	This unit requires the individual to prepare and mount flexographic plates and plate cylinders for complex printing. Plates and cylinders are checked for registration.

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 non-routine 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 with minimum wastage 1.3. Prior inspections are completed and signed off
2. Prepare flexographic plates	2.1. Plate height is measured according to ***non-routine*** job specifications 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. Prepare plate cylinder	3.1. Plate cylinders/seamless sleeves are selected, cleaned and prepared and correct gears are mounted OR 3.2. Sleeves and correct gears on mandrels are selected, cleaned, prepared and mounted to meet non-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. Mount and demount flexographic plates on mounting/proofing machine	4.1. Plates are prepared and mounted on cylinders using pin mounts or microdot systems or sleeves according to chart number/print direction OR 4.2. Plate mounting sheet is prepared to meet non-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. Correct cleaning solution and brush are used to clean plate 4.6. Correct tools are used to demount plate without damaging plate 4.7. Plate is visually checked for damage 4.8. Plate is prepared for storage and then stored correctly according to 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 interpreting job brief and advising client (internal or external) about options and limitations
- collecting, analysing and organising information by collecting and analysing data about printing process, machine specifications and performance to calculate appropriate adjustments for job
- planning and organising activities by providing information about time and materials requirements for production scheduling
- teamwork when cooperating with other workers and coordinating production unit to ensure efficient operation
- mathematical ideas and techniques by calculating plate position and pressures
- problem-solving skills by recognising proofing faults and calculating adjustments necessary to meet job specifications
- use of technology by using monitoring equipment and computerised production records

Required knowledge

- the need to ensure that the job specifications are read and properly understood
- production problems that could eventuate by not reading and understanding the job specifications
- the person you would discuss any production problems
- OHS concerns that are there when mounting and demounting plates
- the most common cause of photopolymer plates crazing on the image side
- the importance of the resiliency of the printing plate
- the main advantage of using thin photopolymer plates in process printing
- faults that may be detected on new plates
- type of solvents that should be used on photopolymer plates
- the benefits of optical mounting
- the purpose of binding plates after mounting
- possible print faults that could be eliminated by using cushion mount
- the result of air being trapped under plates
- selecting the correct cushion mount for a particular job
- eliminating low spots
- minimising press bounce in jobs that are mounted more than one across
- some possible causes of print slur
- preventing or minimise plates lifting

REQUIRED SKILLS AND KNOWLEDGE
• methods used to make registering the job easier on the press • machine manuals, safety and other documentation that are relevant to this task and where are they kept • information that is included in these documents • other sources of information that are available

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: • prepare and mount flexographic plates and plate cylinders for complex printing. Plates meet the job specifications and registration is checked if necessary • demonstrate an ability to find and use information relevant to the task from a variety of information sources • mount and demount plates and install in a flexographic printing machine for a variety of different complex print jobs on TWO occasions according to job specifications 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 • 4 or more colour 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: • ICPPR413C Set up for complex flexographic printing • ICPPR414C Produce complex flexographic printed product.

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.	
Jobs may include:	• surface and reverse (lamination) prints.
Non-routine may include:	• non-routine within this context relates to the set up and production of print runs. The set up of equipment and production involves a significant amount of deviation from using standard equipment settings. It also involves significant problem solving and the development of new criteria and procedures for performing current practices. It does not refer to a job that an individual does only occasionally.
Types of plates may include:	• range of plate types and thicknesses used in flexographic printing.
Inks/coatings may include:	• range of inks commonly used in 3 or more colour printing, including standard and special colours.
Colour matching systems may include:	• use of viscosity controls, densitometers and spectrophotometry.
Machines may include:	• range of stack, in-line and central impression flexographic printing machines with manual, semi-automated or fully automated process control.
Design may include:	• 4 or more colours, complex graphics and text. Critical "tight" registration, fit and position, registration should be at least that required for four-colour process work.
Tape may include:	• tape characteristics, densities.

Unit Sector(s)

Unit sector	

Competency field

Competency field	Printing

Co-requisite units

Co-requisite units		