Australian Government

Department of Education, Employment and Workplace Relations

ICPPR271C Set up for basic coating

Revision Number: 1

ICPPR271C Set up for basic coating

Modification History

Not applicable.

Unit Descriptor

Unit descriptor	This unit describes the performance outcomes, skills and knowledge required to set up for routine spot or overall coating.

Application of the Unit

Application of the unit	This unit requires the individual to set up rollers and the reel or sheet systems for coating a range of aqueous coatings, UV varnishes and machine varnishes. The individual will conduct a proof run and adjust settings to ensure production speeds are attained.

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 carried out correctly in minimum time with minimum wastage 1.3. Availability of all job related components is checked
2. Set up reel system (OR Element 3)	2.1. Unwind and rewind reels are is set up and adjusted according to job specifications 2.2. Webbing procedures are carried out and web-control system is set up and adjusted according to job specifications 2.3. Reels are spliced/joined according to job specifications 2.4. Printed web viewing devices are set up and adjusted according to job specifications 2.5. Set off/marking prevention devices are set up and adjusted according to job specifications
3. Set up sheet system (OR Element 2)	3.1. Feeder and delivery is set up and adjusted according to job specifications 3.2. Sheet pick-up and transportation system is set up and adjusted according to job specifications 3.3. Transfer and control systems are set up and adjusted according to job specifications 3.4. ***Substrate*** is removed from process according to job instructions 3.5. Set off/marking prevention devices are set up and adjusted according to job specifications
4. Select and prepare coating	4.1. ***Coating*** is selected according to job specifications and end-user requirements 4.2. Quality and suitability of coating is checked and appropriate action is taken 4.3. Coatings and additives are prepared according to OHS requirements, and manufacturer's/supplier's instructions with suitable precautions to minimise waste 4.4. Correct weight/volume of coating is prepared to match the requirements of the job specification and the coating process 4.5. Check the viscosity of coating is correct for the job 4.6. Formulation of the coating is appropriately recorded

ELEMENT	PERFORMANCE CRITERIA
5. Set up machine for coating	5.1. Appropriate rollers/cylinders are selected and secured to the ***machine*** and set 5.2. Application system is set up and adjusted according to job specifications 5.3. Coating delivery system is set up with correct flow and return flow determined by air pressure or pump speeds and adjusted according to job specifications 5.4. Cut a coating blanket or install a plate for non-image areas 5.5. Check that blanket or plate packing is suitable to the job 5.6. Check that the coating temperature is suitable for the job 5.7. Drying system is set up and adjusted according to job specifications
6. Conduct proof run	6.1. Material to be used for proof is organised correctly 6.2. Machine is set up and operated to produce a specified proof according to OHS requirements, manufacturer's specifications and enterprise procedures 6.3. Proof is visually inspected and/or tested or laboratory testing organised according to enterprise procedures 6.4. Production does not commence without client OK or authority where appropriate 6.5. Results are interpreted and adjustment changes are carried out according to product and machine specifications 6.6. Adjustment changes are carried out according to product and machine specifications

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 tickets and requirements
- collecting, analysing and organising information by collecting and assessing data about coating process and machine specifications and characteristics and how these interact
- planning and organising activities by providing information about time and materials requirements for production scheduling
- teamwork when maintaining the production process in association with others
- mathematical ideas and techniques by calculating plate position and coating viscosity
- problem-solving skills by recognising proofing faults and determining adjustments to correct them
- use of technology by using monitoring equipment and interpreting readouts

Required knowledge

- job specifications
- where on the work ticket is the information listing the type of coating required
- procedures if vital information were missing from the job ticket
- checks that should be undertaken prior to set up (availability of materials etc)
- sheet or reel transportation
- major OHS concerns when setting up the sheet or reel transportation system
- choosing the coating side of the material
- effect of low web tension on the print
- effect of inefficient web splices
- sheet or reel position for the job
- appropriate front lays
- carrying out a register check
- reasons for a two-sheet cut out on most feeders (sheet)
- machine knowing if a sheet is missing or late
- machine knowing if there has been a web break
- sheet or reel delivery
- safety risks associated with the rewind of the machine
- affect of excessive web tension at the rewind of the machine
- effect that too much vacuum on the slow-down wheels will have on the job

REQUIRED SKILLS AND KNOWLEDGE
• determining the position of register or bustle wheels • excessive jogging • coating preparation • OHS concerns are relevant to the use of coatings • types of coating • suitability of coating for the job • ability of the coat to adhere to the product determined • amount of coating required • range of viscosities to be run with on aqueous coatings • effect of incorrect viscosity • adjusting the viscosity of a coating • machine set up • methods for solidifying a coating • drying UV coating • printing principles • aqueous coating • temperature the drier set at to dry aqueous coating • image carrier (plate or blanket) • proofing and adjustments • position of the coating checked against the print • effect skeleton wheels could have on the surface of the coating • measuring the amount of gloss on the surface • responsibility for the final "OK" on the job • effect when you don't have enough coating on a sheet • effect that a UV coating would have on a wet print • machine manuals, safety and other documentation that are relevant to this task and where are they kept and information 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: • set up rollers and the reel or sheet systems for coating a range of aqueous coatings, UV varnishes and machine varnishes. The individual will conduct a proof run and adjust settings to ensure production speeds are attained • 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 • demonstrate all safety devices on the machine • set up for TWO basic coating operations (one spot coating and one overall coating and if possible including at least ONE in-line process) according to manufacturer's and 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 • printing machines or dedicated coating machines.
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,

EVIDENCE GUIDE	
	for example: • ICPSU201C Prepare, load and unload reels and cores on and off machine • ICPSU202C Prepare, load and unload product on and off machine • ICPSU207C Prepare machine for operation (basic) • ICPSU211C Prepare ink and additives • ICPPR272C Produce basic coated 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.	
Substrate handling may include:	• narrow or wide reel handling, and small and large sheet systems.
Coatings may include:	• a range of aqueous coatings, UV varnishes and machine varnishes.
Machines may include:	• a range of printing machines or dedicated coating machines with manual, semi-automated, fully automated or computerised process control.
Colour matching systems may include:	• use of visual colour assessment and densitometry to match basic standard tints under controlled lighting conditions.
In-line processes 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.
Substrate types may include:	• paper and paper board and other substrates as appropriate.
Routine 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	

Competency field

Competency field	Printing

Co-requisite units

Co-requisite units		