



Australian Government

ICPPRN271 Set up for basic coating

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to set up and adjust rollers and the reel or sheet systems for coating a range of aqueous coatings, UV varnishes and machine varnishes.

It applies to individuals who work under direct supervision and prepare material, and monitor and run equipment and machinery.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Printing

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
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 delivery systems	2.1 Delivery systems and are set up and adjusted according to job specifications 2.2 Substrate is removed from process according to job instructions
3. Select and prepare	3.1 Coating is selected according to job specifications and end-user

ELEMENT	PERFORMANCE CRITERIA
coating	requirements 3.2 Quality and suitability of coating is checked and appropriate action is taken 3.3 Coatings and additives are prepared according to work health and safety (WHS) requirements, and manufacturer's/supplier's instructions with suitable precautions to minimise waste 3.4 Correct weight/volume of coating is prepared to match requirements of the job specification and coating process 3.5 Check the viscosity of coating is correct for the job 3.6 Coating formulation is appropriately recorded
4. Set up machine for coating	4.1 Appropriate rollers/cylinders are selected and secured to the machine and set 4.2 Application system is set up and adjusted according to job specifications 4.3 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 4.4 Coating blanket is cut or a plate installed for non-image areas 4.5 Blanket or plate packing is checked for job suitability 4.6 Coating temperature is checked for job suitability 4.7 Drying system is set up and adjusted according to job specifications
5. Conduct proof run	5.1 Material to be used for proof is organised correctly 5.2 Machine is set up and operated to produce a specified proof according to work health and safety (WHS) requirements, manufacturer's specifications and enterprise procedures 5.3 Proof is visually inspected and/or tested or laboratory testing organised according to enterprise procedures 5.4 Production does not commence without client authority, where appropriate 5.5 Results are interpreted and adjustment changes are carried out according to product and machine specifications 5.6 Adjustments are carried out according to product and machine specifications

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 3.1, 3.3, 3.4, 4.2, 4.3, 4.7, 5.2, 5.4-5.6	Recognises and evaluates text to establish job requirements from information contained within relevant systems
Writing	3.6	Completes workplace forms accurately
Oral Communication	2.1-2.5, 3.1-3.5, 4.1, 4.3, 4.4, 5.2, 5.3, 5.7, 6.2-6.6	Participates effectively in spoken interactions to confirm or clarify understandings
Numeracy	4.4	Interprets and analyses a range of mathematical information used in familiar and routine tasks
Navigate the world of work	3.1-3.5, 4.1-4.3, 4.5-4.7, 5.1-6.6	- Complies with legislative requirements and follows organisational policies and procedures relevant to own role - Understands roles and responsibilities for task and makes basic decisions on work completion requirements, seeking assistance when needed
Interact with others	3.1, 3.3, 3.4, 4.2, 4.3, 4.7, 5.2, 5.3, 5.5, 5.6	Cooperates with others as part of familiar routine activities, and contributes to specific activities requiring joint responsibility and accountability
Get the work done.	1.1-1.3, 3.1-3.5, 4.1-4.7, 5.1-5.3, 5.5, 5.6	- Determines priorities and sequences steps involved in clearly defined tasks - Implements actions as per instructions, making slight adjustments if necessary - Plans, identifies and assembles resources required to complete tasks - Follows routine procedures for using digital technology by reading data from electronic monitoring and control systems

Range of Conditions

This section specifies different work environments and conditions that may affect performance. Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included.

Delivery systems must include EITHER:	• reel OR • sheet
Monitoring and adjusting MUST include EITHER:	• unwind and rewind reels • web control system • print web viewing devices • set off / marking prevention devices OR • feeder and delivery • sheet pick up and transportation system • transfer and control systems • set off / marking prevention devices

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICPPRN271 Set up for basic coating	ICPPR271C Set up for basic coating	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>

Assessment Requirements for ICPPRN271 Set up for basic coating

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Performance Evidence

Evidence of the ability to:

- set up rollers and reel or sheet systems for coating a range of aqueous coatings, UV varnishes and machine varnishes and conduct a proof run and adjust settings to ensure production speeds are attained
- demonstrate use of control, monitoring and data entry systems
- 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, and enterprise procedures.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

Interpret job specifications

- identify where information about the type of required coating is located on the work ticket
- explain actions to be taken if vital information is missing from the job ticket
- outline checks to be done prior to set up (availability of materials etc.)

For reel systems only

- list major work health and safety (WHS) concerns when setting up the reel transportation system
- outline safety risks associated with the machine's rewind section
- explain how low web tension and inefficient web splices impacts the print
- identify how the machine recognises if there has been a web break
- describe effect of excessive web tension at the rewind section of the machine
- discuss how to determine reel position for the job

For sheet systems only

- list major WHS concerns when setting up the sheet transportation system
- discuss how to determine sheet position for the job
- explain how appropriate front lays are selected
- list reasons for a two-sheet cut-out on most feeders
- identify how the machine recognises if a sheet is missing or late
- identify how the coating side of the material is chosen
- identify why a register check is carried out

Delivery system

- identify impact of too much vacuum on slow-down wheels has on the job
- describe what determines position of register or bustle wheels
- outline impact of excessive jogging on the stack

Coating preparation

- list WHS concerns relevant to use of coatings
- list THREE types of coating
- describe how suitability of coating for the job is determined
- outline how ability of the coat to adhere to the product is determined
- explain how to determine how much coating is required
- describe range of viscosities to be run with on aqueous coatings
- outline the impact of incorrect viscosity
- explain how to adjust viscosity of a coating

Machine set-up

- explain methods the coating uses to solidify
- explain what is required to dry UV coating
- explain printing principles used to apply aqueous coating
- describe what temperature the drier should be set at to dry aqueous coating
- outline how to determine which image carrier (plate or blanket) to use

Proofing and adjustments

- describe how position of the coating is checked against the print
- discuss the impact skeleton wheels have on the coating surface
- outline how the amount of gloss on the surface can be measured
- identify who is responsible for the final OK on the job
- describe the impact of not enough coating on a sheet
- describe the impact a UV coating has on a wet print

Information sources

- identify machine manuals, safety and other documentation relevant to this task, where are they kept and the information contained.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the printing field of work and include access to:

- special purpose tools, equipment and materials
- a printing machine or dedicated coating machines with manual, semi-automated, fully automated or computerised process control.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>