

Title	Undertake pre-make ready for sheet-fed offset printing		
Level	3	Credits	20

Purpose	People credited with this unit standard are able to: check job documentation and confirm that the requirements for the job are available; prepare substrates for sheet-fed printing; select and use chemicals required for sheet-fed offset dampening systems; check and confirm plates; apply knowledge of inks and ink additives for sheet-fed offset printing; and demonstrate knowledge of platemaking.
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Classification	Printing > Printing - Sheet-Fed
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Available grade	Achieved
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Prerequisites	Unit 340, <i>Demonstrate knowledge of safe working practices in the print industry</i> , or demonstrate equivalent knowledge and skills.
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Guidance Information

- 1 Legislation, regulations and/or industry standards relevant to this unit standard include but are not limited to the:

- Hazardous Substances and New Organisms Act 1996;
- Health and Safety at Work Act 2015;
- Privacy Act 2020;
- Resource Management Act 1991.

Any new, amended or replacement Acts, regulations, standards, codes of practice, guidelines, or authority requirements or conditions affecting this unit standard will take precedence for assessment purposes, pending review of this unit standard.

- 2 Definitions

Job documentation refers to the documentation that is used in the workplace that contains the instructions and requirements for a particular production job. This may include but is not limited to workplace orders, production orders, workplace specifications, samples, lay cards.

Job requirements refer to specific requirements for the print job at hand. These requirements may or may not be covered in the job documentation and may include special instructions, quality requirements expected by the customer, and/or production standards as set down by the print workplace and/or organisation.

Press requirements refer to the specific requirements for the press being operated as set out in the operating manual or in accordance with workplace practices.

Workplace procedures refer to organisation policies and procedures that are documented in memo, electronic, or manual format and available in the workplace. They may include but are not limited to – standard operating procedures, site specific procedures, site safety procedures, equipment operating procedures, quality assurance procedures, product quality specifications, manufacturer's requirements, references, approved codes of practice, housekeeping standards, environmental considerations, on-site briefings, supervisor's instructions, and procedures to comply with legislative and local body requirements relevant to the print sector.

- 3 It is recommended that people hold credits for Unit 26321, *Demonstrate industry knowledge for sheet-fed printing*; and Unit 16509, *Demonstrate knowledge of, and handle and store substrates used for sheet-fed printing*, before being assessed against this unit standard.

- 4 Assessment information
Candidates undertaking this unit standard must provide evidence of normal colour vision.

Evidence presented for assessment against this unit standard must be consistent with safe working practices and be in accordance with applicable service information, workplace procedures and legislative requirements.

Outcomes and performance criteria

Outcome 1

Check job documentation and confirm that the requirements for the job are available.

Performance criteria

- 1.1 Check job documentation to ensure that all specifications for the process being undertaken are complete, and report any discrepancies.
- 1.2 Check job components against the job documentation, and confirm their availability.
- 1.3 Confirm equipment is available, as determined by the job documentation.

Outcome 2

Prepare substrates for sheet-fed printing.

Performance criteria

- 2.1 Confirm substrate suitability and quality meet the job requirements.
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| Range | dependent on substrates used – meets job specifications, correct grain direction, watermark, affinity to ink, substrate trimmed accurately. |
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2.2 Calculate substrate quantity, including overs, and confirm quantity issued against the job documentation.

2.3 Condition substrates to ensure smooth running on the press.

Outcome 3

Select and use chemicals required for sheet-fed offset dampening systems.

Range may include but is not limited to – water, fountain concentrate, alcohol or alcohol substitutes, driers.

Performance criteria

3.1 Identify and select fountain additives used in the workplace.

3.2 Measure and dilute fountain additive concentrations.

3.3 Check fountain solution for pH and conductivity.

3.4 Solve problems arising from the use of chemicals.

Range image blinding, scumming, tinting, emulsification, roller stripping.

Outcome 4

Check and confirm plates.

Performance criteria

4.1 Check and confirm plates meet the press requirements.

Range may include but is not limited to - calliper, size, register, correct punching for press.

4.2 Check plates against the proof for image defects, and rectify or report any defects.

Outcome 5

Apply knowledge of inks and ink additives for sheet-fed offset printing.

Performance criteria

5.1 Select inks to meet the substrate, press and job requirements.

Range may include but is not limited to – drying properties, transparency, blister packaging, colourfastness, scuff, odour free, substrate, gloss, colour, opacity, overprint finish, laser printer compatibility.

5.2 Mix inks using colour mixing and matching systems available in the workplace.

5.3 Calculate ink quantities to meet the job requirements.

5.4 Select and use ink additives to ensure quality of print meets job requirements.

Outcome 6

Demonstrate knowledge of platemaking.

Range may include but is not limited to – direct photographic plate, computer to plate (CTP), process-less plate.

Performance criteria

6.1 Explain the platemaking procedure.

6.2 Identify and report platemaking faults.

Range incorrect exposure, image defects, poor contact, incorrect image positioning, damaged plate.

Planned review date	31 December 2027
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Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	31 March 1995	31 December 2025
Revision	2	20 July 1998	31 December 2025
Review	3	25 May 1999	31 December 2025
Review	4	22 October 2003	31 December 2025
Rollover and Revision	5	12 December 2008	31 December 2025
Review	6	18 June 2010	31 December 2027
Review	7	30 March 2023	N/A
Revision	8	27 February 2025	N/A

Consent and Moderation Requirements (CMR) reference	0013
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

Comments on this unit standard

Please contact Hanga-Aro-Rau Manufacturing, Engineering and Logistics Workforce Development Council qualifications@hangaarorau.nz if you wish to suggest changes to the content of this unit standard.