
Overview

This standard is for web offset printers with responsibility for setting up web offset printing units on web presses. The standard involves the set-up of the machine for printed work that meets the quality required by the customer with the minimum of waste materials.

A multi-unit machine is one that prints two or more colours in a single pass through the machine. It includes the make-ready and the identification and correction of associated print faults, that occur during set-up, whether they are caused by machine or materials.

Multi-unit web offset printing machines have many possible configurations and features. This standard requires a web offset printer to be able to set up units on multiple-unit presses. The likelihood is the web offset printer will work as part of a team. The printer must have a full working knowledge of multi-unit presses, including issues that arise from the transfer of substrate between units.

Practical ability must be demonstrated in setting up the press to produce printed work to a commercially acceptable standard. This must be done on different substrates and covering a sufficient range of printed work to show full competence to set up a multi-colour web offset units. This should include a variety of different kinds of images.

This standard requires a web offset printer to be able to set up and maintain web offset printing units on a web-fed printing machine. The printer needs to have a full working knowledge of web offset printing units, including issues that arise from the transfer of substrate between units, ink strength, trapping and drying, achieving and maintaining ink densities for inks on different substrates, and colour control.

Practical ability must be demonstrated through the production of printed work of a commercial standard from web offset units, in the context of multiple units printing process colour and/or combined spot colours.

The printer must be able to set-up multi-colour work. The printer must be able to check and assess the quality of print under correct viewing conditions against an approved proof and make whatever adjustments are necessary to the press to achieve and maintain the quality required. On more modern machines, integral colour control hardware and software is installed, allowing the printer to check continually that ink densities, dot measurements or spectral colour meet recognised standards and/or are consistent with company standards. The printer is required to be familiar with colour standards and how such standards are maintained. If equipment for this purpose is in use in the company, then the printer must be capable of operating and understanding it.

As well as making ready unit(s) for particular jobs, the printer must also be able to undertake routine maintenance of the unit to ensure it prints to an acceptable quality. Often this will be checked with reference to known quality standards.

Performance criteria

You must be able to:

Prepare the plate cylinders

1. check you have all the details required for the job and approval to start work
2. check you have enough materials of the right type to meet specifications
3. report to your manager, if the material provided is not correct or sufficient
4. check machines and your work area are safe and ready for production
5. check the condition of printing plates is suitable for production and meets imposition specifications
6. fit plates onto plate cylinders to meet specifications

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Set up substrate transport system

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7. *select web for production to meet specifications*
8. *use reel handling equipment in a safe manner*
9. *position web centrally on reel stands following standard operating procedures*
10. *web up the press following the web path required to meet specifications*
11. *check reel unwind is meeting the in-feed requirements following standard operating procedures*
12. *position web detectors to meet specifications*
13. *test substrate transfer system to confirm it runs without breaking following standard operating procedures*
14. *set impression pressure for the thickness of substrate to be printed following standard operating procedures*

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Set and adjust the units inking system to suit print profile

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15. *put ink into ducts to meet specifications*
16. *check any fount solution is formulated for ph and conductivity*
17. *check any fount solution is up to correct level in reservoirs following standard operating procedures*
18. *pre-set ink ducts to image profile following standard operating procedures*
19. *ink up ink rollers following standard operating procedures*

20. pre-damp damping system following standard operating procedures

21. ink up units so that colour strength is achieved across the units

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Set press to match pass sheet standard

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22. set, test and adjust impression pressures so clean, even print is produced

23. position images to meet specifications

24. adjust machine settings to meet specifications and quality standards

25. report to your manager if circumstances beyond your control prevent you from producing a pass sheet to the required standard

26. obtain a "pass sheet" that meets company standards

27. identify and rectify faults that occur with machines and consumables following standard operating procedures

Knowledge and understanding

You need to know and understand:

Law and regulations

1. your legal duties for health and safety in the workplace as defined by the relevant health and safety legislation
2. your duties and responsibilities for health and safety as defined by any specific legislation covering your job role
3. workplace policies and procedures
4. working practices
5. hazards and risks in the workplace, their assessment and the action to take to deal with them
6. hazards and risks in your own job, their assessment and the action to take to deal with them - including relevant regulations on the safe handling of equipment and materials.
7. manufacturer's health and safety requirements relevant to your job
8. Personal Protective Equipment used
9. how to stop machinery in the event of an emergency

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Communication

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10. *how to communicate with colleagues, customers and suppliers*

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Workplace policy and practice

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11. *workplace objectives, priorities, standards and procedures*
12. *the range of work carried out in the workplace*
13. *the working practices existing in the workplace*

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The identification and assessment of printing options

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14. *the stages in the printing process from pre-press to printed product*

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Time and Resources

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15. the different types of resource, including labour, materials, machinery

16. the relationship between resource usage and profitability

17. how to maximise productivity

18. the relationship between productivity and competitiveness

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The operation of equipment

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19. range of adjustments and settings on web offset printing units

20. operating practices and procedures for web offset printing units

21. use of colour control equipment, including densitometers and spectrophotometers

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Printing

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*22. principles of flexographic printing**

The causes and treatment of common faults

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23. raw material faults

24. processing (printing) faults

25. machine faults

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Administrative procedures

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26. recording and reporting

27. product labelling

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Environmental

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28. legal requirements for the classification, storage, carriage and disposal of waste

29. environmental legislation that covers processes in your company

30. existence of any national or international standards on environmental management

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Quality Assurance and Control

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31. main features of quality assurance and quality control systems

32. techniques for controlling quality, including inspection, testing, sampling, use of input and output controls

33. equipment for controlling quality in machine printing

34. light standards for viewing and assessing colour print

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Problem Solving

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35. types of problems that may need to be solved

36. sources of information

37. techniques for solving complex problems

*38. techniques for assessing machine faults**

Materials

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39. types and characteristics of paper, board and other commonly used substrates

40. types and characteristics of inks, coatings and coatings

41. how to maintain the quality of materials during storage and handling

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Proofing

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42. principal types of proof and their role in the printing process

GQAMP288

Control the set-up of web offset printing units on a multi-unit web offset press



Developed by Improve

Version Number 3

Date Approved 30 Mar 2020

Indicative Review Date 30 Mar 2025

Validity Current

Status Original

Originating Organisation Proskills

Original URN GQAMP288

Relevant Occupations Printing Machine Minders and Assistants, Printing Trades

Suite Machine Printing

Keywords Print, printing, press, graphic
