

Control narrow-web printing machinery

Overview

This standard is for printers with responsibility for running 'narrow-web' printing machinery. It includes lithographic, flexographic, digital and gravure printing machines.

For the purpose of this standard, a narrow web machine is one that prints on a reel-fed substrate that is 457mm or less in width, although in some instances the width may be slightly above this.

Narrow web printing machines have many possible configurations and features and are found particularly in the label, continuous stationery and packaging sectors. The printing processes employed may be lithography, gravure, flexography, digital, screen or a combination of these. Narrow web machines often have inline enhancing, converting, folding, sheeting and drying equipment fitted to them. A significant difference between a wide-web machine and a narrow-web machine is the number of people usually employed to set up and run the machine. Some narrow-web machines, such as label printers, may require only a single printer to make-ready and operate them.

The narrow-web printer must understand the setting and operation of all parts of the machine and be able to direct any colleagues during the make ready and operation of the machine. Problems that occur need to be solved either by the printer or by a colleague under the direction of the printer.

Practical ability must be demonstrated in managing the production of printed work to a commercially acceptable standard, with consistency maintained throughout the run. Narrow-web printers must be able to identify subsequent processing operations and relate them to the production of work from the printing machine.

It is also essential that the printer ensures the supply of materials to the press for jobs that are to be printed, and also ensures that all other consumables are readily available should they be required, such as replacement blankets, spray powders, inks, coatings, fount solutions and doctor blades.

Making sure that the machine is fit for use also requires that routine maintenance is undertaken and also that developing faults requiring specialist attention are acted upon before the press becomes inoperable or suffers damage. A 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 printing machine to achieve and maintain the quality required. On most modern machines, integral colour control hardware and software is installed, allowing the printer to check continually that colour reproduction meet recognised standards and/or are maintained within tolerance of an approved 'pass sheet'.

As a minimum, the printer is required to understand colour standards and how such

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standards are maintained. If equipment for this purpose is in use in company, then the printer must be capable of operating and understanding it.

A machine manager 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 most modern machines, integral colour control hardware and software is installed, allowing the printer to check continually that colour reproduction meets recognised standards and/or is maintained within tolerance of an approved 'pass sheet'. As a minimum, the machine manager is required to understand colour standards and how such standards are maintained. If equipment for this purpose is in use in company, then the machine manager must be capable of operating and understanding it.

Note: This standard is intended for printers who work on wide web machines and who may take responsibility for the whole machine at some time. It is accepted that in some companies such printers may only provide brief cover whilst the 'No. 1' printer is temporarily absent from the machine. Where such printers 'act up' only rarely or briefly, that should not prevent them from achieving the standard, providing they can demonstrate they have the competences set out in the standard.

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Performance criteria

You must be able to:

Make-ready narrow-web printing machinery

1. comply with health and safety requirements and procedures at all times
2. obtain specifications and requirements of the items to be produced following standard operating procedures
3. obtain equipment and materials required to carry out the job following standard operating procedures
4. check equipment is set up and in good working order following standard operating procedures and any manufacturer's instructions
5. check all materials required are to specification and free from faults
6. assist colleagues where required and confirm problems are resolved
7. control the 'run-up' of material, the establishing of good register and colour, and the satisfactory drying of ink and coatings
8. check output from units meet specifications
9. manage adjustments to machinery settings to meet specifications and quality standards
10. report to your manager if circumstances beyond your control prevent you from producing 'pass' sheets to required standards
11. obtain a 'pass' from the relevant person(s) following standard operating procedures

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Control output and quality from narrow-web printing machinery

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12. check you have approval to commence production following standard operating procedures
13. run printing machinery at the optimum speed to meet specifications
14. manage colleagues to ensure good quality and productivity from the press
15. check output matches 'pass' sheets, keeping time-stamped print samples following standard operating procedures
16. identify and correct problems which affect the quality of images or reduce rate of outputs
17. report to your manager if circumstances beyond your control prevent you from achieving the required quantity or quality of printed sheets
18. run required quantity of products, keeping spoiled material to a minimum
19. identify and remove any sub-standard prints from the finished work
20. remove waste following standard operating procedures
21. record production and quality assurance details following standard operating procedures
22. identify machine parts that may be in need of maintenance or replacement and check those responsible for carrying out such work are kept informed of the requirements

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- 23. liaise with relevant colleagues concerning scheduled maintenance and repair of machinery
- 24. manage the day to day cleaning and setting of the machine so that it is fit for use when required

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Knowledge and understanding

You need to know and understand:

The law as it affects printing

1. defamation
2. copyright and ownership of images
3. obscenity
4. forgery
5. data protection
6. the printers imprint

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Health and safety

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7. your legal duties for health and safety in the workplace as defined by the relevant health and safety legislation

8. your duties and responsibilities for health and safety as defined by any specific legislation covering your job role

9. workplace policies and procedures

10. working practices

11. hazards and risks in the workplace, their assessment and the action to take to deal with them

12. 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.

13. manufacturer's health and safety requirements relevant to your job

14. what personal protective equipment should be used in your job

15. how to stop a machine in the event of an emergency

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Security and storage

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16. print with time-sensitive or restricted release dates

17. high value products or print with a high risk of theft

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Communication

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18. how to communicate with colleagues, customers and suppliers

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Workplace policy and practice

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- 19. workplace objectives, priorities, standards and procedures*
- 20. the range of work carried out in the workplace*
- 21. the working practices existing in the workplace*
- 22. the key job roles within the printing and graphic communications industry and their main purposes*

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The identification and assessment of printing options

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

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Time and resources

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- 24. the different types of resource, including labour, materials, machinery*
- 25. the relationship between resource usage and profitability*
- 26. how to maximise productivity*
- 27. the relationship between productivity and competitiveness*

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The operation of equipment

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- 28. the range of adjustments and settings on narrow web printing machines*
- 29. the operating practices and procedures for narrow web printing machines*
- 30. the use of colour control equipment, including densitometers and spectrophotometers**

Printing

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- 31. the principles of narrow web printing machinery and the printing processes used*

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The causes and treatment of common faults

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- 32. raw material faults*
- 33. processing (printing) faults*
- 34. machine faults*

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Administrative procedures

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- 35. recording and reporting*
- 36. product labelling*

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Management

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37. briefing techniques

38. business improvement techniques

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Environmental

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

40. any specific environmental legislation that covers processes in your company

41. role of statutory authorities/agencies

42. control of pollution

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Quality assurance and control

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43. the main features of quality assurance and quality control systems

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

45. equipment for controlling quality in machine printing

46. light standards for viewing and assessing colour print

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Problem solving

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47. types of problems that may need to be solved

48. sources of information

49. techniques for solving complex problems

*50. techniques for assessing machine faults**

Materials

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

52. the types and characteristics of inks and coatings

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

Proofing

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

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