

Overview

This standard is for printers with responsibility for running sheet-fed, multi-unit lithographic presses. The standard involves the production of printed work which meets the quality required by the customer with the minimum of wasted materials and achieving the productivity levels required by the company. A multi-unit machine is one that prints two or more colours in a single pass through the machine. It includes the running of such machines, including the identification and correction of associated print faults, whether they are caused by machine or materials.

Multi-unit lithographic printing machines have many possible configurations and features. This standard requires a machine operator to be able to print multi-colour print on multiple-unit presses. The printer must have a full working knowledge of multi-unit presses. Practical ability must be demonstrated in producing printed work to a commercially acceptable standard, with consistency throughout the run, on different substrates and covering a sufficient range of printed work to show full competence as a multi-colour lithographic printer. This should include a variety of different kinds of images. The printer must be able to print four-colour process 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 an approved 'pass sheet'.

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 lithographic printer must be capable of operating and understanding it.

Performance criteria

You must be able to:

Run the sheet-fed multi-unit lithographic printing machine at the optimum speed

1. confirm you have authority to commence production following standard operating procedures
2. run sheet-fed multi-unit lithographic printing machines at optimum speed, achieving the required standard
3. check output matches pass sheets following standard operating procedures
4. run the required number of good sheets, keeping spoiled material to a minimum to meet specifications
5. identify and remove any sub-standard sheets from the stack of finished work following standard operating procedures
6. report to your manager if circumstances beyond your control prevent you from achieving the required quantity or quality of printed sheets
7. remove waste following current legislation
8. record production and quality assurance details required**

Identify and rectify print problems

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9. identify and correct the cause of machine problems that affect the quality of images and reduce the rate of output
10. identify and correct the cause of consumable problems that affect the quality of images and reduce the rate of output
11. identify machine parts that require replacing and check parts are available when required
12. identify maintenance to be carried out on machines and confirm it is brought to the attention of the person in your company who will schedule it in the production plans

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. incitement
5. forgery
6. data protection
7. the printers imprint

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Ethical and employment issues relevant to printing

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8. *confidentiality*

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Health and safety

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

10. *workplace policies and procedures*

11. *working practices*

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

13. *hazards and risks in your own job, their assessment and the action to take to deal with them*

14. *manufacturers' and suppliers' health and safety instructions / advice*

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

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*

19. *how to communicate with suppliers*

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Workplace policy and practice

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20. workplace objectives, priorities, standards and procedures

21. the range of work carried out in the workplace

22. the working practices existing in the workplace

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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**

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

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The operation of equipment

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27. the operation of multi-unit lithographic printing machines

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Printing

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28. the principles of lithography

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The causes and treatment of common faults

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29. raw material faults

30. processing faults

31. machine faults

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Administrative procedures

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32. scheduling

33. recording and reporting

34. product labelling

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Environmental

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- 35. the legal requirements for the classification, storage, carriage and disposal of waste*
- 36. any specific environmental legislation that covers processes in your company*
- 37. control of pollution*

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Quality assurance and control

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- 38. the main features of quality assurance and quality control systems*
- 39. techniques for controlling quality*
- 40. equipment for controlling quality in printing*
- 41. light standards for viewing and assessing colour print*

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Problem solving

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- 42. types of problems that may need to be solved*
- 43. sources of information*
- 44. techniques for assessing machine faults*

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Materials

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- 45. the types and characteristics of paper, board and other commonly used substrates*
- 46. the types and characteristics of inks, toners and coatings*
- 47. how to maintain the quality of materials during storage and handling*

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Proofing

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- 48. the principal types of proof and their role in the printing process*

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Relevant Occupations	Printing Machine Minders and Assistants, Printing Trades
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Suite	Machine Printing
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