
Overview

This standard is for printers with responsibility for running flat sheet digital colour printing machines. 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. The construction of the machine should be that it prints two or more colours in a single pass. It includes the running of such machines, including the identification and correction of associated print faults, whether they are caused by machine or materials.

Modern digital colour printing machines have become extremely sophisticated, high speed devices capable of producing high quality print. Some toner and inkjet printers can now produce print that matches the conventional printing processes. Some digital printers also have a range of options for finishing 'in-line', ranging from a single staple of a collated set to a perfect bound book.

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 flat sheet digital colour printer. This should include a variety of different kinds of images. The printer must be able to print four-colour process work and/or combined spot colours.

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 machine 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 spectral colour values 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 digital printer must be capable of operating and understanding it

Performance criteria

You must be able to:

Maintain the quality of output from flat sheet digital colour printing machines

1. confirm you have authority to commence production
2. run flat sheet digital colour printing machines achieving the required standard
3. check that output matches the pass sheet, making adjustments where necessary
4. run the required number of good copies, keeping spoiled material to a minimum
5. identify and remove any sub-standard printed matter from the 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 copies
7. remove waste following current legislation
8. record the 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 may require replacing and make sure that such parts are available when required
12. Identify maintenance that needs to be carried out on the machine and make sure that 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:

****Maintain digital colour printing machines in serviceable condition:**

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

****ethical issues relevant to printing**

1. confidentiality

****health and safety**

1. your duties and responsibilities for health and safety as defined by any specific legislation covering your job role
2. working practices
3. the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used
4. hazards and risks in your own job, their assessment and the action to take to deal with them
5. manufacturer's and supplier's health and safety instructions / advice**

the safe handling of customer material

14. what kinds of customer materials are likely to be handled, including original photographs or artwork, samples, disks, raw materials for print or finishing
15. techniques for protecting customer materials

16. insurance

17. the potential for loss or damage

**security and storage

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1. computer system security and virus protection
2. print with time-sensitive or restricted release dates
3. high value products or print with a high risk of theft
4. secure means of archiving digital and conventional artwork

**communication with colleagues

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1. with customers
2. with suppliers

**workplace policy and practice

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*24. workplace objectives, priorities, standards and procedures**

the operation of equipment

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- 25. the set-up of digital communications equipment and software*
- 26. the operation of digital communications equipment and software**

printing

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*27. the principles of digital printing**

how to deal with digital files

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28. file conversion techniques
29. file compression and decompression techniques the transmission of digital files
 1. file management**

the causes and treatment of common faults

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31. raw material faults

*32. processing faults machine faults**

administrative procedures

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33. planning

34. scheduling

35. recording and reporting

*36. product labelling*environmental*

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

quality assurance and control

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38. the main features of quality assurance and quality control systems techniques for controlling quality

39. equipment for controlling quality in printing

*40. light standards for viewing and assessing colour print**

problem solving

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41. types of problems that may need to be solved

42. sources of information

43. techniques for solving complex problems

44. techniques for assessing machine faults

**materials

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1. the types and characteristics of paper, board and other commonly used substrates: the range of commonly used uncoated, coated, embossed papers and

boards; grammage, thickness, opacity, brightness/whiteness, strength, dimensional stability, gloss

2. the types and characteristics of inks, toners and coatings

3. maintaining the quality of materials during storage and handling**

cleaning, lubrication and maintenance

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48. the principal activities involved with machine cleaning, lubrication and maintenance

49. roles and responsibilities for cleaning, lubrication and maintenance

50. machine faults and how they can be rectified

51. the maintenance plans for machines which you operate which components wear or become degraded over time

52. what is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities

53. the choice and use of suitable cleaning agents and lubricants

54. what parts of the machine you are allowed to clean, lubricate and maintain

55. preventive v. predictive maintenance

**proofing

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

GQAMP291

Control output and quality from flat sheet digital colour printing machines



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