

## Overview

This standard is for printers with responsibility for flat sheet digital colour printing machines. 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. It applies, if you work in a studio, imaging bureau or digital printing environment and you are responsible for the operation of a production-scale digital colour printing machine.

This standard covers the configuration and set up of 'production-scale' web fed digital colour printing machines.

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 setting up the machine 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 web fed digital colour printing machine. This should include a variety of different kinds of images, printing process colour and/or spot colours.

It is necessary to run calibration routines at required intervals, to ensure that the colour management system within the workflow is correctly used and, if necessary, make sure that the colour profiles for the printing machine are accurate. Often this will be checked with reference to known quality standards.

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

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maintain the quality required. For documents sent directly to the printing machine from a computer, the inclusion (or omission) of a source or destination 'profile' in an image file and the selection in print dialogue boxes of colour matching or rendering options can make a dramatic difference to the colour output from the machine. The printer must also be able to undertake routine maintenance of the machine to ensure it prints to an acceptable quality.

## Performance criteria

*You must be able to:*

\* *Check file suitability for printed product\**

1. check you have all the details required 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. identify any post-printing requirements to meet specifications
5. check machines and your work area are safe and ready for production
6. preflight digital files for printing and check whether any source or destination colour profiles are embedded in documents
7. set printer software to handle any colour profiles in the way required to meet specifications
8. deal with any incorrect embedded colour profiles following standard operating procedures
9. set up print parameters for printers and job requirements, including any colour settings
10. use settings to download or print digital job file(s) to digital printing machines to meet specifications

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Set up substrate transport system

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11. *select web for production to meet specifications*
12. *use reel handling equipment in a safe manner*
13. *position web centrally on reel stands to meet specifications*
14. *web up the press following the web path required to meet specifications*
15. *confirm reel unwind is meeting the in-feed requirements*
16. *position web detectors to meet specifications*
17. *test the substrate transfer system to confirm it runs without breaking*

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Set press to match pass sheet standard

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18. check images are complete, colour accurate, free from contamination or other faults, and in register to meet specifications
19. check fonts, substrates, imposition, scaling and orientation meet specifications
20. check any duplexing or finishing options meet specifications
21. adjust machines or print download settings to achieve required job specifications and quality standards
22. report to your manager if circumstances beyond your control prevent you from producing a pass sheet to the required standard

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23. obtain "pass sheets" that meets company standards
  24. identify and rectify faults that occur with machines or consumables

## 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 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. working practices

11. the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used

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

13. manufacturer's and supplier's health and safety instructions / advice

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the safe handling of customer material

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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

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security and storage

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18. computer system security and virus protection

19. print with time-sensitive or restricted release dates

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

21. secure means of archiving digital and conventional artwork

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communication with colleagues

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22. with customers

23. with suppliers

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workplace policy and practice

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24. workplace objectives, priorities, standards and procedures

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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

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printing

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27. the principles of digital printing

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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

30. file management

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the causes and treatment of common faults

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31. raw material faults

32. processing faults machine faults

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administrative procedures

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33. planning

34. scheduling

35. recording and reporting

36. product labelling

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environmental

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

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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

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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

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materials

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

46. maintaining the quality of materials during storage and handling

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cleaning, lubrication and maintenance

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47. the principal activities involved with machine cleaning, lubrication

and maintenance

48. roles and responsibilities for cleaning, lubrication and maintenance
49. machine faults and how they can be rectified
50. the maintenance plans for machines which you operate which components wear or become degraded over time
51. what is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities
52. the choice and use of suitable cleaning agents and lubricants what parts of the machine you are allowed to clean, lubricate and maintain
53. preventive v. predictive maintenance

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proofing

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

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