
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. The operation of “office” digital printing machines does not apply

This standard covers the configuration and set up of 'production-scale' digital colour printing machines whether they are flat sheet large format or flat sheet-fed 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 flat sheet 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 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 for the job
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 for the job
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 and print digital job file(s) to digital printing machines**Set up substrate transport system

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11. *select the appropriate substrate transport system to meet specifications*
12. *place substrate and sufficient make-ready sheets into feeders to meet specifications*
13. *set the front lays and side lay to meet specifications*
14. *test substrate transfer systems to confirm sheets run consecutively with no missed sheets or doubles**Set press to match pass sheet standard

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

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20. obtain "pass sheets" that meets company standards
 21. identify and rectify faults that occur with machines and consumables

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**

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

3. insurance
4. the potential for loss or damage

****security and storage**

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**

1. with customers
2. with suppliers

****workplace policy and practise**

1. workplace objectives, priorities, standards and procedures

****the operation of equipment**

1. the set-up of digital communications equipment and software
2. the operation of digital communications equipment and software

****printing**

1. the principles of digital printing

how to deal with digital files

1. file conversion techniques
2. file compression and decompression techniques the transmission of digital files
3. file management

****the causes and treatment of current faults**

1. raw material faults
2. processing faults machine faults

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administrative procedures

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1. planning
2. scheduling
3. recording and reporting
4. product labelling

**environmental

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

**quality assurance and control

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1. the main features of quality assurance and quality control systems techniques for controlling quality
2. equipment for controlling quality in printing
3. light standards for viewing and assessing colour print

**problem solving

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1. types of problems that may need to be solved
2. sources of information
3. techniques for solving complex problems
4. 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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1. the principal activities involved with machine cleaning, lubrication and maintenance

2. roles and responsibilities for cleaning, lubrication and maintenance

3. machine faults and how they can be rectified

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

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

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

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

8. preventive v. predictive maintenance**Proofing

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

GQAMP290

Control the set-up of flat sheet digital colour printing machines



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