

PRODPP227 - SQA Unit Code F3LW 04

Operate digital printing machines



Overview

Digital printing machines are now found everywhere – in homes, in offices and in commercial printing businesses.

They range from small ink-jet printers that can be held in the hand to large-format poster printers and high-speed document machines that can print in black and white and, increasingly, colour.

This standard is for people who operate digital printing machines in a production environment – where there is a customer, either internal or external, for whom work is produced and a person whose job it is to produce print on the digital machine(s).

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Performance criteria

Prepare digital printing machines for production

- You must be able to:*
- P1 check that you have all the details required for the job
 - P2 check that you have enough materials of the right type for the job
 - P3 promptly report to your manager, if the material provided is not correct or sufficient
 - P4 accurately identify post-printing requirements
 - P5 check that the machine and your work area are safe and ready for production
 - P6 download or print the digital job file(s) to the digital printing machine using the correct settings so that:
 - P6.1 the print output meets the job specification
 - P6.2 the image is complete, colour accurate, free from contamination or other faults, and in register
 - P6.3 the correct fonts have been used
 - P6.4 the correct substrates have been used
 - P6.5 any duplexing or finishing options are correct
 - P6.6 imposition, scaling and orientation are correct
 - P6.7 the output satisfies the required quality standard
 - P7 make adjustments to the machine settings or print download settings as necessary to achieve the required job specification and quality standards
 - P8 report promptly to your manager, if the specification or quality standards cannot be met
 - P9 promptly report any machine faults which it is not your job to correct

Run digital printing machines

- You must be able to:*
- P10 run the digital printing machine
 - P10.1 at the required speed
 - P10.2 safely and efficiently
 - P11 keep up the supply of materials and consumables throughout the run
 - P12 regularly check that quality standards and job specifications are met
 - P13 accurately record production and quality assurance details
 - P14 follow the correct procedure for the removal of waste
 - P15 stack work safely, using the approved method

Assist in fault finding and correction

- You must be able to:*
- P16 accurately identify faults which
 - P16.1 affect the quality of the image
 - P16.2 produce a shortfall in output
 - P16.3 create risks to health and safety
 - P17 accurately identify and correct machine faults which it is your job to

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correct

P18 promptly report faults which are not your job to correct or are not corrected by the action you take

P19 give constructive help to colleagues who are correcting faults on your machine

P20 check that the machine is safe to operate, once faults are corrected

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Knowledge and understanding

Assist in fault finding and correction

You need to know and understand:

- K1 **the law as it affects printing**
 - K1.1 copyright and ownership of images
 - K1.2 forgery
 - K1.3 data protection
 - K1.4 obscenity
 - K1.5 incitement
- K2 **ethical issues relevant to printing**
 - K2.1 confidentiality
- K3 **health and safety**
 - K3.1 your duties and responsibilities for health and safety as defined by any specific legislation covering your job role manufacturer's health and safety requirements relevant to your job
 - K3.2 how to stop a machine in the event of an emergency
- K4 **the safe handling of customer material**
- K5 **security and storage**
 - K5.1 computer system security and virus protection
 - K5.2 secure means of archiving digital and conventional artwork
- K6 **communication**
 - K6.1 with colleagues
 - K6.2 with customers
 - K6.3 with suppliers/service engineers
- K7 **workplace policy and practice**
 - K7.1 workplace objectives, priorities, standards and procedures
 - K7.2 the range of work carried out in the workplace
- K8 **the identification and assessment of printing options**
 - K8.1 the stages in the printing process from pre-press to printed product
- K9 **time and resources**
 - K9.1 how to maximise productivity
- K10 **the operation of equipment**
 - K10.1 the operation of digital printing machinery
- K11 **printing**
 - K11.1 the principles of digital printing
- K12 **how to deal with digital files**
 - K12.1 dealing with embedded information
 - K12.2 file management
- K13 **the causes and treatment of common faults**
 - K13.1 raw material faults
 - K13.2 processing faults
 - K13.3 machine faults
- K14 **administrative procedures**

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- K14.1 recording and reporting
- K14.2 product labelling
- K15 **environmental**
 - K15.1 any specific environmental legislation that covers processes in your company
 - K15.2 control of pollution
- K16 **quality assurance and control**
 - K16.1 techniques for controlling quality
 - K16.2 equipment for controlling quality in digital printing
- K17 **problem solving**
 - K17.1 sources of information
 - K17.2 techniques for assessing machine faults
- K18 **materials**
 - K18.1 the types and characteristics of paper, board and other commonly used substrates
 - K18.2 the types and characteristics of inks, toners and coatings
 - K18.3 maintaining the quality of materials during storage and handling
- K19 **cleaning, lubrication and maintenance**
 - K19.1 the principal activities involved with machine cleaning, lubrication and maintenance
 - K19.2 roles and responsibilities for cleaning, lubrication and maintenance
 - K19.3 machine faults and how they can be rectified
 - K19.4 the maintenance plans for machines which you operate
 - K19.5 which components wear or become degraded over time
 - K19.6 the choice and use of suitable cleaning agents and lubricants
- K20 **proofing**
 - K20.1 the principal types of proof and their role in the printing process
 - K20.2 incitement
 - K20.3 with suppliers/service engineers

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Additional Information

Scope/range

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Given the vast range of digital printing machines, the operator should be capable of running the machine competently under supervision in a commercial or production environment, fulfilling all the performance criteria statements.

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