
Overview

Die Stamping is a specialist printing process that produces high quality printed images characterised by ink raised on the surface of the substrate.

This standard covers the competence required for the 'make-ready' of die stamping machines.

This standard requires the machine operator to undertake all the steps required to make a die stamping machine ready for production, to run the machine to produce commercially acceptable work, and to assist in identifying and correcting faults with the equipment.

To achieve consistent quality print in die stamping, the machine operator must use ink of the correct viscosity to transfer a sharp image from the 'die' to the substrate when the correct amount of printing pressure is applied. The printed image must be 'in register' on the substrate and the register must be consistent from one sheet to the next. The machine operator must be able to show the ability to consistently set up a die stamping machine correctly to achieve these requirements.

During production, it is important that consistency from sheet to sheet is maintained.

The machine operator will need to demonstrate the ability to carry out make-ready operations for a variety of different jobs to a commercially acceptable standard within an acceptable timescale.

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Set and operate die stamping printing machines

Performance criteria

Set up die stamping machinery

You must be able to:

- P1 check that you have all the details you need for the job
- P2 check that you have sufficient materials for the job
- P3 set the paper transport to run efficiently and safely, so that:
 - P3.1 the job stock is fed and forwarded without misses or doubles
 - P3.2 the transport operates safely and efficiently, at the required running speed
- P4 sheets are delivered squarely and form an even pile
- P5 fit and position the die correctly, so that
 - P5.1 the die is properly secured
 - P5.2 the die is square to the platten
- P6 set the ink feed so that the image is correctly inked and surplus ink is removed from the die
- P7 establish colour strength and image register on the substrate
- P8 set the correct printing pressure to ensure proper image transfer
- P9 check that your work area is safe and ready for production
- P10 obtain approval from your manager to run the job.

You must be able to:

Run die stamping machinery

- P11 run the die stamping machine
 - P11.1 at the required speed
 - P11.2 safely and efficiently
- P12 regularly check that quality standards are met, including ink strength, image register and drying
- P13 promptly report any shortfalls in production or problems in maintaining image quality
- P14 follow the correct procedures for the removal of waste
- P15 stack work safely, using the approved method
- P16 forward work to the next stage of the process without damage.

P17 Assist in fault finding and correction

You must be able to:

- P18 accurately identify faults which
 - P18.1 affect the quality of the image
 - P18.2 produce a shortfall in output
 - P18.3 create risks to health and safety
- P19 accurately identify and correct mechanical faults which it is your job to rectify
- P20 promptly report faults which are not your job to correct or are not corrected by the action you take
- P21 give constructive help to colleagues who are correcting faults on your machine
- P22 check that the machine is safe to operate, once faults are corrected

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Knowledge and understanding

You need to know and understand:

The law as it affects printing

K1 copyright and ownership of images

You need to know and understand:

Health and safety

K2 legal duties for health and safety in the workplace as defined by the relevant health and safety legislation

K3 your duties and responsibilities for health and safety as defined by any specific legislation covering your job role

K4 workplace health and safety procedures

K5 what personal protective equipment should be used in your job

K6 how to stop a machine in the event of an emergency

You need to know and understand:

Communication

K7 with colleagues

You need to know and understand:

The operation of equipment

K8 the principles of die stamping

K9 the different types of dies used in die stamping

K10 the safe operation of drying equipment used in die stamping

You need to know and understand:

The causes and treatment of common faults

K11 raw material faults

K12 machine faults

You need to know and understand:

Environmental

K13 the legal requirements for the classification, storage, carriage and disposal of waste

You need to know and understand:

Materials

K14 the types and characteristics of paper, board and other commonly used substrates

K15 the types and characteristics of inks used in die stamping

K16 maintaining the quality of materials during storage and handling

You need to know and understand:

Cleaning, lubrication and maintenance

K17 roles and responsibilities for cleaning, lubrication and maintenance

K18 machine faults and how they can be rectified

K19 which components wear or become degraded over time

K20 what is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities

K21 the choice and use of suitable cleaning agents and lubricants

K22 what parts of the machine you are allowed to clean, lubricate and maintain

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Proofing

You need to know and understand:

K23 the principal types of proof and their role in the printing process

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