PROPF350 (SQA Unit Code - H9KX 04)

Set up and control foil blocking machinery

Overview

This standard is for print finishers using foil blocking machinery. They will be expected to set up the equipment and control it whilst running production jobs.

This standard consists of two elements:

- Set up foil blocking machinery
- Run foil blocking machinery and monitor quality

This is what the standard covers:

1. identifying the job requirements
2. checking that the foil blocking machinery is working properly
3. checking that safety devices are working properly
4. running the foil-blocking machinery safely
5. adjusting settings, where necessary to maintain the required standard
6. checking that work meets the required standard
7. identifying faults and taking action to deal with them
8. unloading and stacking the finished product

Performance criteria

You must be able to:

Set up foil blocking machinery

1. check that you have all the job details you need
2. check that you have enough materials of the right type
3. report to relevant people straight away, when the materials provided are not correct or sufficient
4. set up foil blocking machinery so that:
   4.1 material to be blocked is fed squarely
   4.2 material to be blocked is coming to the register against stops
   4.3 foil is fed evenly to give minimum gap between impressions
   4.4 the temperature is correct for the material to be blocked
   4.5 images are clean, sharp and have overall solid colour density
   4.6 images are correctly positioned on the material subsequent colours are in register and fit with other colours
5. check that samples produced by the machine match the required standard
6. make any necessary adjustments to enable standards to be met
7. report to appropriate people without delay, when standards cannot be met
8. prepare your work area so that it is safe and ready for production

Run foil blocking machinery and monitor quality

9. run foil blocking machinery so that it is safe and efficient and at the required speed to produce the output
10. keep up sufficient supplies of materials so that runs continue as long as necessary
11. check regularly that quality standards are met
12. identify the cause of production faults, which result in**:**
    12.1 image out of square
    12.2 foil not sticking to material surface
    12.3 image not having solid appearance
    12.4 image blurred
    12.5 marking of material outside image area
    12.6 loss of fine detail
13. adjust machines, using approved methods and equipment, to correct mechanical faults which it is your job to remedy
14. use agreed procedures to report mechanical faults which it is not your job to correct
15. check that machinery is safe to operate, once faults are corrected
16. record production and quality assurance details, checking information is

accurate

17. follow the correct procedures for the removal of waste
18. stack work using the approved method

Knowledge and understanding

You need to know and understand:

Health and safety

1. your duties and responsibilities for health and safety as defined by any specific legislation covering your job role
2. regulations such as those covering manual handling, noise at work, personal protective equipment, safe handling of equipment and materials, and the safe use of computer equipment
3. workplace policies and written operating procedures relating to written health and safety policy statement, provision, use and processes of workplace equipment, training, prohibited equipment, young persons, safe systems of work

Working practices

4. the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used
5. typical hazards and risks in the printing industry and those that relate to your own job
6. risk assessment techniques and the action to take to deal with them
7. codes of practice relevant to your role and where to obtain information on them
8. manufacturers' and suppliers' health and safety instructions and advice for operating machinery, guarding machinery and data sheets for substances harmful to health
9. the requirements for personal presentation including personal hygiene, suitable clothing and accessories, fitness for work, such as not under the influence of drugs, alcohol or medication, smoking policies in the workplace
10. how to stop a machine in the event of an emergency

Foil blocking machinery

11. the purpose of foil blocking
12. the information and materials required to meet job specification
13. safety devices found on foil blocking machinery, their purpose and how to check they are functional
14. how to set up and adjust foil blocking machinery to meet job requirements
15. the causes of common faults and how to rectify them including image out of square, foil not sticking to material surface, image not having solid appearance, image blurred, marking of material outside image area or loss of fine detail

The causes and treatment of common faults

16. the causes of faults with raw materials, processes and machinery used in your business and how to identify and treat them

Quality assurance and control

17. techniques for controlling quality including inspection, testing, sampling and use of input and output controls
18. the impact that faults, in the process you are involved with, have on later processes and the quality of the end product

Problem solving

19. types of problems that may need to be solved including machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement, materials - defects, shortages, incompatibility, systems, organisation and lack of skills or knowledge
20. sources of information for solving problems including manufacturer's documentation / troubleshooting guides, colleagues, tutors / trainers / mentors and reference material - in house or external, such as the internet
21. techniques for solving complex problems including changing one thing only at a time and assessing effect of the change, using the problem solving cycle, root cause analysis, brainstorming and visual representations, such as fishbone / mindmap diagrams
22. techniques for assessing machine faults including observation, listening, inspection of product, reports from colleagues / log reports, touch or smell (if safe to do so) and testing, such as electrical, mechanical, electronic

Materials

23. the types of paper, board and other commonly used substrates including commonly used uncoated, coated, embossed papers and boards
24. the grammage, thickness, opacity, brightness/whiteness, strength, dimensional stability, gloss of paper, board and other commonly used substrates
25. how to maintain the quality of materials and protect them from damage, humidity and temperature during storage and handling
26. how to label and identify materials

Scope/range

In addition to being able to produce commercially acceptable work, operators should be competent to maintain supplies of printed sheets or plain material, different page and image sizes and a range of blocking foils and materials.

Operators should be able to deal with all running problems within his/her responsibility. Operators are also responsible for ensuring that the machine is in a safe and clean condition for normal production operations.

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