

Set up post press machinery under supervision

Overview

This standard is about setting up machinery or equipment under supervision in a general print environment or for newspaper or periodical production.

It can apply to the setup of any relevant machinery or equipment but specifically applies to:

- auto-fed sewing machinery
- multiple hopper feeders
- multi-knife trimming machinery
- mail processing machinery
- booklet making machinery
- laminating equipment
- auto punching and cutting machinery
- slitting and re-reeling machinery (adhesive label production)
- automatic stacking/palletising equipment
- automated machinery for newspaper or periodical finishing
- non automatic finishing machinery including wire stitching machines, perforating machines, drilling machines, thread stitching machines, punching machines, eyeletting machines, riveting machines, rotary perforating machines

This is what the standard covers:

1. identifying the job requirements
2. setting up the machinery to produce desired outputs
3. producing and checking a sample
4. adjusting machine settings to ensure desired outputs

Performance criteria

You must be able to:

1. check that you have all the job details you need to set up the machinery
2. check that you have sufficient materials of the right type to complete the job
3. report to the person in charge if the quality or quantity of materials provided are incorrect or insufficient
4. set up the machine so that finished work will meet the requirements of your job instructions and will consistently meet the quality of the approved sample
5. set up the machine so that it processes materials in the correct way without damage, marking or distortion
6. set up the machine so that it will produce the required volume of output at the intended running speed
7. check with the person in charge that a sample from the machine matches required standards
8. make any necessary adjustments to the way the machine is set up to enable quality standards to be met
9. report to the person in charge if the standards cannot be met as soon as you identify that you cannot remedy the situation
10. prepare your work area so it is safe and ready for production

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

Setting up machinery

11. the purpose of the process you are undertaking
12. the information and materials required to meet job specification
13. safety devices found on the machinery you are using, their purpose and how to check they are functional
14. how to set up and adjust the machinery you are using to meet job requirements
15. the causes of common faults with the process you are undertaking and how to rectify them

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

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Scope/range

The operator should be able to set up machinery or equipment under supervision so that it can produce commercially acceptable work and meet any specific requirements listed below for that machinery.

- **auto-fed sewing machinery** – set up the machinery to sew open head, closed head and lapped fore-edge work so that:
 - the feeder correctly locates the centre of each section
 - sections are fed squarely and without damage into the sewing machine
 - endpapers are glued squarely and securely onto sections,
 - sewing positions are spaced across spines within the finished trim size
 - sewing holds sections securely without damage or distortion
 - sewn book blocks are delivered without damage
- **multiple hopper feeders** – set up hoppers over a variety of work, sizes and coated and uncoated stock so that:
 - sections are brought together to give the correct page sequence
 - sections are fed squarely from hoppers to the transport chain
 - separation ensures that sections are transported squarely, without damage
- **multi knife trimming machinery** - set up the equipment to trim a range of products using three and/or five knife trimmers on a range of thicknesses and types of stock so that:
 - piles are fed squarely into the trimmer
 - the clamp holds the pile firmly without marking
 - piles are trimmed squarely and delivered without damage or distortion
 - trimmed size is within variations permitted by your company
- **mail processing machinery** - set up the equipment to produce a range of mail processes so that:
 - material is processed without damage or distortion and material feeds squarely and centrally to the trimmer unit, when trimming is required
 - inserts are fed correctly into the required envelopes
 - envelopes, carrier sheets or wrappings are coded correctly
 - an accurate count is maintained
- **booklet making machinery** - set up the equipment to produce thin and bulky booklets, at least two different sizes of printed sheet on coated and uncoated stock so that:
 - the collator is set for the size of the flat sheet
 - flat sheets are in the correct sequence and with each pile showing it is different
 - the printed image is correctly-positioned
 - the collator mis-feed and double detector(s) are set correctly
 - the staples are correctly positioned
 - the fold is made in the correct position,

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- the fore-edge trim is correctly positioned
- the settings are appropriate for the booklet thickness

The collator and the stitch-fold-trim unit may be separate pieces of machinery or may be inline. However, hand collating is not acceptable; nor are booklet-makers without a trimmer.

- **laminating equipment** - set up the equipment to laminate products of various sizes on a range of thicknesses and types of stock so that:
 - laminating film is fed squarely on to the product
 - laminating takes place without marking, creasing or air bubbles
- **auto punching and cutting** - set up the equipment to cut and punch products of various sizes on a range of thicknesses and types of stock so that:
 - punching and cutting is clean without any burrs
 - punching and cutting is in register with the printed product
 - all waste is removed from sheets.
- **slitting and re-reeling** - set up the equipment to slit and re-reel labels various sizes and lengths on a range of thicknesses and types of stock so that:
 - slitting is clean without any burrs
 - waste is removed from final reels
 - reels are produced of the correct length or meterage
 - reels are square to the core
- **automatic stacking/palletising equipment** - set up the equipment to produce a wide range of bundle numbers and sizes so that:
 - bundles are fed centrally with no snagging
 - pallets are placed centrally in guides
 - pallets are wrapped without damage or distortion
 - layers are even and stable.

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Suite Post Press

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