

## Set up and control in-line gathering-adhesive binding-trimming machinery

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### Overview

This standard is for print finishers using in-line gathering-adhesive binding-trimming machinery. They will be expected to set up the equipment and control it equipment whilst running production jobs.

This standard consists of two elements:

- Set up in-line gathering-adhesive binding-trimming machinery
- Run in-line gathering-adhesive binding-trimming machinery and monitor quality

This is what the standard covers:

1. identifying the job requirements
2. checking that the in-line gathering-adhesive binding-trimming machinery is working properly
3. checking that safety devices are working properly
4. running the in-line gathering-adhesive binding-trimming 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 in-line gathering-adhesive binding-trimming 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 appropriate people straight away, if the materials provided are not correct or sufficient
4. set up the in-line gathering-adhesive binding-trimming machinery so that:
  - 4.1 sections are gathered to give the correct page sequence
  - 4.2 sections are fed squarely from hoppers to the transport chain
  - 4.3 book blocks are fed into the binder squarely and without damage
  - 4.4 spine preparation gives the correct glue penetration of the paper
  - 4.5 glue is applied evenly at the correct temperature and covers fed squarely
  - 4.6 score lines do not break the cover surface
  - 4.7 books are fed into the trimmer squarely and without damage
  - 4.8 clamp holds pile firmly without marking
  - 4.9 piles are trimmed squarely and delivered without damage or distortion
  - 4.10 the trimmed size is within the variation permitted by your company
5. check that samples produced by the machine match the required standard and make any necessary adjustments when the standard is not met
6. report to appropriate people straight away, when work cannot be produced to the required standard
7. prepare your work area so that it is safe and ready for production

### **Run in-line gathering-adhesive binding-trimming machinery and monitor quality**

8. run in-line gathering-adhesive binding machinery so that it is safe and efficient and at the required speed
9. keep up sufficient supplies of materials so that runs continue as long as necessary
10. check at regular intervals that your company's quality standards are met
11. identify the causes of production faults which result in:
  - 11.1 sections not in the correct order
  - 11.2 cracking of the cover surface on front cover and spine
  - 11.3 rounding of spines
  - 11.4 too much or too little glue penetration
  - 11.5 poor page-pull strength
  - 11.6 covers not registering correctly with book blocks
  - 11.7 unacceptable cut size variation

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- 11.8 score marks on cut surfaces
  - 11.9 ragged cut on bottom pages
  - 11.10 book spines splitting at head and tail
  - 11.11 books not square or spines creasing
  - 12. adjust machines, using approved methods and equipment, to correct faults which it is your job to remedy
  - 13. use agreed procedures to report faults which it is not your job to correct
  - 14. check that machinery is safe to operate, once faults have been corrected
  - 15. record the production and quality assurance details, checking that information is accurate
  - 16. follow the correct procedures for the removal of waste
  - 17. 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

### Inline gathering-adhesive binding-trimming machinery

11. the purpose of gathering, adhesive binding and trimming
12. the information and materials required to meet job specification
13. safety devices found on inline gathering-adhesive binding-trimming machinery, their purpose and how to check they are functional
14. how to set up and inline gathering-adhesive binding-trimming machinery to meet job requirements
15. the causes of common faults and how to rectify them including sections not in the correct order, cracking of the cover surface on front cover and spine, rounding of spines, too much and too little glue penetration, poor page-pull

strength, covers not registering correctly with book blocks, unacceptable cut size variation, score marks on cut surfaces, ragged cut on bottom pages, book spines splitting at head and tail, books not square, spines creasing

### **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 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**

In addition to being able to produce commercially acceptable work, operators should be competent to operate the equipment to produce thin books and bulky books on coated and uncoated stock. They should also be able to handle closed head, open head, lapped and unlapped work.

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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**Validity** Current

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**Status** Original

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**Originating Organisation** Proskills

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**Original URN** PROPF353

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**Relevant Occupations** Originators compositors and print preps; Printers; Printing machine minders and assistants; Printing Trades; Bookbinders and print finishers; Screen printers; Graphic designers

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**Suite** Post Press

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