Set up and control folding machinery

Overview	This standard is for print finishers using folding 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 folding machinery
• Run folding machinery and monitor quality

This is what the standard covers:
1. identifying the job requirements
2. checking that the folding machinery is working properly
3. checking that safety devices are working properly
4. running the folding 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 folding 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, when the materials provided are not correct or sufficient
4. set up folding machinery so that:
   4.1 sheets are fed squarely and consistently, without damage or distortion
   4.2 any mis-fed sheets are detected by the machine's device
   4.3 sheets are folded without damage and are free from unacceptable creasing
   4.4 work is slit and perforated squarely and cleanly and sections are delivered without damage
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 straight away, when standards cannot be met
8. prepare your work area so that it is safe and ready for production

Run folding machinery and monitor quality

9. run folding machinery so that it is safe and efficient and at the required speed
10. keep up sufficient supplies of materials so that runs continue as long as necessary
11. check at regular intervals that your company's quality standards are met
12. identify the causes of faults in production, which result in:
    12.1 sheets sticking together
    12.2 sheets failing to enter or leave fold unit or sheets folded out of square
    12.3 slitting and perforating not parallel to sheet edge
    12.4 unacceptable creasing of sections or marking of sections
13. adjust machines, using approved method and equipment, to correct faults which it is your job to remedy
14. use agreed procedures to report faults which it is not your job to correct
15. check that machinery is safe to operate, once faults have been corrected
16. record the production and quality assurance details, checking information is correct
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

Folding machinery

11. the purpose of folding
12. the information and materials required to meet job specification
13. safety devices found on folding machinery, their purpose and how to check they are functional
14. how to set up and adjust folding machinery to meet job requirements
15. the causes of common faults and how to rectify them including sheets sticking together, sheets failing to enter or leave fold unit or sheets folded out of square, slitting and perforating not parallel to sheet edge, unacceptable creasing of sections or marking of sections

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 material

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Scope/range

In addition to being able to produce commercially acceptable work, operators should be competent to maintain supplies of printed sheets folded to 4, 8, 16 and gate folds to various sizes, using different weights, types and sizes of paper – coated and uncoated.

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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Developed by	Proskills
Version Number	2
Date Approved	October 2014
Indicative Review Date	April 2019
Validity	Current
Status	Original
Originating Organisation	Proskills
Original URN	PROPF348
Relevant Occupations	Originators compositors and print preps; Printers; Printing machine minders and assistants; Printing Trades; Screen printers; Bookbinders and print finishers; Graphic designers
Suite	Post Press
Keywords	post press, post-press, print finishing, machinery, folding