

PROPF356

Set and operate booklet making machinery



Overview

This standard is for print finishers who are setting up and operating booklet making machinery. They will be expected to control the equipment whilst running production jobs.

This standard consists of **Two** elements:

Element 356.1 Set up booklet-making machinery under supervision

Element 356.2 Operate booklet-making machinery

This is what the standard covers

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

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Performance criteria

Set up booklet-making machinery under supervision

You must be able to:

- P1 check that you have the job specification
- P2 identify materials you must use for the job
- P3 check that the safety devices are working properly
- P4 set the collator:
 - P4.1 for the size of the flat sheet
 - P4.2 so that the flat sheets are in the correct sequence
 - P4.3 with each pile showing it is different, correctly-positioned printed image
 - P4.4 mis-feed and double detector(s) correctly
- P5 set the stitch-fold trim unit so that:
 - P5.1 the staples are correctly positioned
 - P5.2 the fold is made in the correct position
 - P5.3 the fore-edge trim is correctly positioned
 - P5.4 the settings are appropriate for the booklet thickness
- P6 produce a sample from the machine and get it passed by your supervisor
- P7 assist your supervisor to make adjustments, if necessary, to enable the quality standards to be met
- P8 report promptly to your supervisor if the standards cannot be met
- P9 check that your work area is safe and ready for production

Operate booklet making machinery

You must be able to:

- P10 operate the machinery:
 - P10.1 at the required production speed
 - P10.2 safely and efficiently
- P11 regularly check that your company's quality standards are met
- P12 accurately identify faults in the product, which result in:
 - P12.1 pages missing or duplicated
 - P12.2 wire stitches or staples missing, broken or misformed
 - P12.3 wire stitches/staples and fold not aligned
 - P12.4 trimming faults such as out of square or wrong size
 - P12.5 marking of inside or outside pages
- P13 promptly and accurately report faults to your manager
- P14 make adjustments to settings if instructed to do so by your manager
- P15 check that the machine is safe to operate, once faults have been corrected
- P16 promptly report to your manager if the machine ceases to function properly
- P17 accurately record production and quality assurance details
- P18 follow the correct procedures for the removal of waste
- P19 stack finished work safely using your company's approved method

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Knowledge and understanding

You need to know and understand:

Health and Safety

- K1 your duties and responsibilities for health and safety as defined by any specific legislation covering your job role
- K2 knowledge of regulations such as those covering:
 - K2.1 manual handling;
 - K2.2 noise at work;
 - K2.3 personal protective equipment;
- K3 workplace policies and procedures
 - K3.1 written health and safety policy statement;
 - K3.2 provision and use of workplace equipment regulations;
 - K3.3 training;
 - K3.4 prohibited equipment;
 - K3.5 young persons;
 - K3.6 written operating procedures for equipment use and processes, including safe systems of work
- K4 the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used.
- K5 hazards and risks in your own job, their assessment and the action to take to deal with them
 - K5.1 including relevant regulations on the safe handling of equipment and materials, and the safe use of computer equipment;
 - K5.2 codes of practice issued by the health and safety executive or the printing industry advisory committee (piac);
 - K5.3 guarding of machinery;
 - K5.4 typical hazards and risks in the printing industry;
 - K5.5 risk assessment techniques
- K6 manufacturers' and suppliers' health and safety instructions / advice
 - K6.1 operating instructions for machinery;
 - K6.2 data sheets for substances harmful to health;
- K7 personal presentation
 - K7.1 personal hygiene
 - K7.2 clothing and accessories suitable to the particular workplace
 - K7.3 fitness for work, e.g. not under the influence of drugs, alcohol or medication
 - K7.4 smoking policies in the workplace
- K8 how to stop a machine in the event of an emergency

You need to know and understand:

The causes and treatment of common faults

- K9 this knowledge will be specific to the materials, processes and equipment used by individual businesses - technical units, where necessary, will detail the scope of knowledge of faults for the unit
 - K9.1 raw material faults
 - K9.2 processing faults
 - K9.3 machine faults

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You need to know and understand:

Quality Assurance and Control

- K10 techniques for controlling quality
- K11 inspection,
- K12 testing,
- K13 sampling,
- K14 use of input and output controls

You need to know and understand:

Problem Solving

- K15 types of problems that may need to be solved
 - K15.1 machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement
 - K15.2 materials - defects, shortages, incompatibility
 - K15.3 systems,
 - K15.4 organisation
 - K15.5 lack of skills or knowledge
- K16 sources of information
 - K16.1 manufacturer's documentation / troubleshooting guides
 - K16.2 colleagues
 - K16.3 tutors / trainers / mentors
 - K16.4 reference material - in house or external, e.g. internet
- K17 techniques for solving complex problems
 - K17.1 change one thing only at a time and assess effect of the change
 - K17.2 problem solving cycle
 - K17.3 root cause analysis
 - K17.4 brainstorming
 - K17.5 visual representations, e.g. fishbone / mindmap diagrams
- K18 techniques for assessing machine faults
 - K18.1 observation
 - K18.2 listening
 - K18.3 inspection of product
 - K18.4 reports from colleagues / log reports
 - K18.5 touch or smell (if safe to do so)
 - K18.6 testing - e.g. electrical, mechanical, electronic

Materials

You need to know and understand:

- K19 the types and characteristics of paper, board and other commonly used substrates
 - K19.1 includes the range of commonly used uncoated, coated, embossed papers and boards;
 - K19.2 grammage, thickness, opacity, brightness/whiteness, strength, dimensional stability, gloss
- K20 maintaining the quality of materials during storage and handling
 - K20.1 humidity and temperature;
 - K20.2 protection from physical damage
 - K20.3 labelling / identification

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You need to know and understand:

Cleaning, Lubrication and Maintenance

- K21 the principal activities involved with machine cleaning, lubrication and maintenance
- K22 roles and responsibilities for cleaning, lubrication and maintenance
 - K22.1 engineers
 - K22.2 manufacturer's agents
 - K22.3 machine operators
 - K22.4 machine assistants
- K23 machine faults and how they can be rectified
 - K23.1 types of faults, e.g. electrical, mechanical, electronic
 - K23.2 skills needed to repair particular types of faults
- K24 the maintenance plans for machines which you operate
 - K23.1 manufacturer's specifications / recommended maintenance plans
 - K23.2 company plans / arrangements for maintenance
- K25 which components wear or become degraded over time
 - K24.1 filters
 - K24.2 bearings
 - K24.3 belts
 - K24.4 chains
 - K24.5 machine or process specific components
- K26 what is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities?
 - K25.1 codes of practice issued by hse or piac
 - K25.2 documented procedures to be followed
 - K25.3 isolating equipment before commencing cleaning and maintenance
 - K25.4 replacement of all guards after cleaning and maintenance
- K27 the choice and use of suitable cleaning agents and lubricants
 - K30.1 manufacturer's specification / recommendations
 - K30.2 environmental considerations
 - K30.3 toxicity / health issues
 - K30.4 disposal of contaminated cleaning materials
- K28 what parts of the machine you are allowed to clean, lubricate and maintain
- K29 preventive v. predictive maintenance

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Additional Information

Scope/range

In addition to being able to produce commercially acceptable work, the operator should be competent to operate the equipment to produce thin and bulky booklets, at least two different sizes of printed sheet on coated and uncoated stock.

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

*For this unit 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.

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Originating organisation	Proskills
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Suite	Print Finishing
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