

---

### Overview

This unit is for print finishers using automatic stacking/palletising equipment. They will be expected to control the equipment whilst running production jobs.

This unit consists of **three** elements:

Element 406.1 Set automatic stacking/palletising equipment

Element 406.2 Maintain the throughput of automatic stacking/palletising equipment

Element 406.3 Maintain automatic stacking/palletising equipment in clean, safe and useable condition

### This is what the unit covers

- 1 Identifying the job requirements
- 2 Checking that the automatic stacking/palletising equipment is working properly
- 3 Checking that safety devices are working properly
- 4 Running the automatic stacking/palletising equipment 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

# PROPF406

## Control automatic stacking/palletising equipment

---

### Performance criteria

#### Set up automatic stacking/palletising equipment

*You must be able to:*

- P1 check that you have all the details you need for the job
- P2 check that you have enough wrapping material for production
- P3 set up units on the equipment correctly, so that:
  - P3.1 bundles are fed centrally with no snagging
  - P3.2 pallets are placed centrally in guides
  - P3.3 the machine program contains all the values calculated to ensure even and stable layers
  - P3.4 pallets are wrapped without damage or distortion
- P4 report promptly and clearly to your manager any difficulties in achieving output, which you cannot resolve

#### Maintain the throughput of automatic stacking/palletising equipment

*You must be able to:*

- P5 run automatic stacking/palletising equipment
  - P5.1 at the correct speed
  - P5.2 safely and efficiently
- P6 keep up the supply of materials throughout the run
- P7 check regularly that stacking/palletised bundles meet the company's quality standards
- P8 forward stacked/palletised work to the correct despatch location
- P9 accurately identify faults which
  - P9.1 produce a shortfall in output
  - P9.2 cause damage or distortion to the end product
  - P9.3 affect the efficient operation of equipment
  - P9.4 create risks to health and safety
- P10 correct faults which it is your job to remedy
- P11 promptly report faults which it is not your job to correct
- P12 co-operate with colleagues who are responsible for correcting faults
- P13 check that the machine is safe to operate, once faults are corrected
- P14 follow the correct procedures for the removal of waste
- P15 accurately record production and quality assurance details

#### Maintain automatic stacking/palletising equipment in a clean, safe and usable condition

*You must be able to:*

- P16 have a 'safe system of work' before commencing any cleaning
- P17 obtain or prepare a schedule of cleaning, lubrication and maintenance for the machine
- P18 identify the recommended intervals for maintenance and lubrication
- P19 ensure that the schedule is implemented and kept up to date, within the time allowed by your company for cleaning, lubrication and

## PROPF406

### Control automatic stacking/palletising equipment

---

maintenance.

P20 prevent any build up of debris in or around the machine by regularly removing it and cleaning the machine

P21 regularly check that the machine is clean enough to prevent marking or damage to the product during normal operation

P22 use cleaning methods which are safe, avoid harm to the environment and which follow the manufacturer's instructions

P23 dispose of used cleaning agents and waste materials safely and in accordance with environment/waste disposal legislation

P24 after cleaning, check that the machine is safe to operate

P25 examine machinery for defective components or excessive wear at intervals required by your company

P26 are able to remove and replace faulty or worn components that are your responsibility

# PROPF406

## Control automatic stacking/palletising equipment

---

### Knowledge and understanding

*You need to know and understand:* **Health and Safety**

*You need to know and understand:* K1 your duties and responsibilities for health and safety as defined by any specific legislation covering your job role

#### **Knowledge of regulations such as those covering:**

*You need to know and understand:* K2 manual handling;  
K3 noise at work;  
K4 personal protective equipment;

#### **Workplace policies and procedures**

*You need to know and understand:* K5 written health and safety policy statement;  
K6 provision and use of workplace equipment regulations;  
K7 training;  
K8 prohibited equipment;  
K9 young persons;  
K10 written operating procedures for equipment use and processes, including safe systems of work

#### **Working Practices**

*You need to know and understand:* K11 the way you actually do your job, more particularly the activities and techniques and the way that materials and equipment are used.

#### **Hazards and risks in your own job, their assessment and the action to take to deal with them**

*You need to know and understand:* K12 including relevant regulations on the safe handling of equipment and materials, and the safe use of computer equipment;  
K13 codes of practice issued by the health and safety executive or the printing industry advisory committee (piac);  
K14 guarding of machinery;  
K15 typical hazards and risks in the printing industry;  
K16 risk assessment techniques  
K17 manufacturers' and suppliers' health and safety instructions / advice  
K18 operating instructions for machinery;  
K19 data sheets for substances harmful to health;

# PROPF406

## Control automatic stacking/palletising equipment

---

<i>You need to know and understand:</i>	<b>Personal Presentation</b>	
	K20	personal hygiene
	K21	clothing and accessories suitable to the particular workplace
	K22	fitness for work, e.g. not under the influence of drugs, alcohol or medication
	K23	smoking policies in the workplace
<i>You need to know and understand:</i>	<b>How to stop a machine in the event of an emergency</b>	
	<b>The causes and treatment of common faults</b>	
<i>You need to know and understand:</i>	K24	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
	K24.1	raw material faults
	K24.2	processing faults
	K24.3	machine faults
	<b>Quality Assurance and Control</b>	
<i>You need to know and understand:</i>	K25	techniques for controlling quality
	K26	inspection,
	K27	testing,
	K28	sampling,
	K29	use of input and output controls
<i>You need to know and understand:</i>	<b>Problem Solving</b>	
	<b>Types of problems that may need to be solved</b>	
	K30	machinery - electrical, mechanical, electronic, settings, component wear and tear, consumables needing replacement
	K31	materials - defects, shortages, incompatibility
	K32	systems,
	K33	organisation
	K34	lack of skills or knowledge
	<b>Sources of information</b>	
	K35	manufacturer's documentation / troubleshooting guides
	K36	colleagues
	K37	tutors / trainers / mentors
	K38	reference material - in house or external, e.g. internet

# PROPF406

## Control automatic stacking/palletising equipment

---

### Techniques for solving complex problems

- You need to know and understand:*
- K39 change one thing only at a time and assess effect of the change
  - K40 problem solving cycle
  - K41 root cause analysis
  - K42 brainstorming
  - K43 visual representations, e.g. fishbone / mindmap diagrams

### Techniques for assessing machine faults

- You need to know and understand:*
- K44 observation
  - K45 listening
  - K46 inspection of product
  - K47 reports from colleagues / log reports
  - K48 touch or smell (if safe to do so)
  - K49 testing - e.g. electrical, mechanical, electronic

### Materials

- You need to know and understand:*
- K50 the types and characteristics of paper, board and other commonly used substrates
    - K50.1 includes the range of commonly used uncoated, coated, embossed papers and boards;
    - K50.2 grammage, thickness, opacity, brightness/whiteness, strength, dimensional stability, gloss

### Maintaining the quality of materials during storage and handling

- You need to know and understand:*
- K51 humidity and temperature;
  - K52 protection from physical damage
  - K53 labelling / identification

### Cleaning, Lubrication and Maintenance

- You need to know and understand:*
- K54 the principal activities involved with machine cleaning, lubrication and maintenance
    - K54.1 roles and responsibilities for cleaning, lubrication and maintenance
    - K54.2 engineers
    - K54.3 manufacturer's agents
    - K54.4 machine operators
    - K54.5 machine assistants

# PROPF406

## Control automatic stacking/palletising equipment

---

### Machine faults and how they can be rectified

*You need to know and understand:*

- K55 types of faults, e.g. electrical, mechanical, electronic
- K56 skills needed to repair particular types of faults

### The maintenance plans for machines which you operate

*You need to know and understand:*

- K57 manufacturer's specifications / recommended maintenance plans
- K58 company plans / arrangements for maintenance

### Which components wear or become degraded over time

*You need to know and understand:*

- K59 filters
- K60 bearings
- K61 belts
- K62 chains
- K63 machine or process specific components

### What is meant by the phrase 'safe system of work' and how it applies to cleaning, lubrication and maintenance activities

*You need to know and understand:*

- K64 codes of practice issued by HSE or PIAC
- K65 documented procedures to be followed
- K66 isolating equipment before commencing cleaning and maintenance
- K67 replacement of all guards after cleaning and maintenance

### The choice and use of suitable cleaning agents and lubricants

*You need to know and understand:*

- K68 manufacturer's specification / recommendations
- K69 environmental considerations
- K70 toxicity / health issues
- K71 disposal of contaminated cleaning materials

*You need to know and understand:*

### What parts of the machine you are allowed to clean, lubricate and maintain

### Preventive v. Predictive Maintenance

# PROPF406

## Control automatic stacking/palletising equipment

---

### Additional Information

#### Scope/range

#### Control automatic stacking/palletising equipment

In addition to being able to produce commercially acceptable work, the operator should be competent to operate the equipment to produce a wide range of bundle numbers and sizes.

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.



## PROPF406

### Control automatic stacking/palletising equipment

<b>Developed by</b>	Proskills
<b>Version number</b>	1
<b>Date approved</b>	August 2010
<b>Indicative review date</b>	April 2015
<b>Validity</b>	Current
<b>Status</b>	Original
<b>Originating organisation</b>	Proskills
<b>Original URN</b>	406
<b>Relevant occupations</b>	Originators compositors and print preps; Printers; Screen printers; Printing machine minders and assistants; Bookbinders and print finishers; Graphic designers
<b>Suite</b>	Print Finishing
<b>Key words</b>	case making; folding; booklet making; foil blocking; laminating; slitting and re-reeling; auto-palletising; mail processing; cutting and creasing