



**Australian Government**

**Department of Education, Employment and Workplace Relations**

# **ICPSU224C Perform basic machine maintenance**

**Revision Number: 1**

## ICPSU224C Perform basic machine maintenance

### Modification History

Not applicable.

### Unit Descriptor

<b>Unit descriptor</b>	This unit describes the performance outcomes, skills and knowledge required to undertake basic routine maintenance of printing and converting equipment.
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### Application of the Unit

<b>Application of the unit</b>	This unit requires the individual to perform basic maintenance of printing and converting equipment.
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### Licensing/Regulatory Information

Not applicable.

### Pre-Requisites

<b>Prerequisite units</b>		

### Employability Skills Information

<b>Employability skills</b>	This unit contains employability skills.
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## Elements and Performance Criteria Pre-Content

Elements describe the essential outcomes of a unit of competency.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.
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## Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
1. Carry out minor routine maintenance and programmed cleaning of reel handling system	<p>1.1. Unwind unit is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>1.2. Web control devices are cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>1.3. Rewind unit is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>1.4. Folding unit is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>1.5. Sheeting unit is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>1.6. Basic <i>maintenance</i> is carried out according to OHS requirements</p>
2. Carry out minor routine maintenance and programmed cleaning of sheet or object handling systems	<p>2.1. Feeder is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>2.2. Lays and transfer gripper system are cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>2.3. Delivery is cleaned, checked and lubricated according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>2.4. Basic maintenance is carried out according to OHS requirements</p>
3. Carry out minor routine maintenance and programmed cleaning of printing units	<p>3.1. Cylinder/screen/plate and roller surfaces, safety devices, gears and bearings are checked, lubricated and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>3.2. <i>Ink</i> distribution system components are checked, lubricated, maintained and replaced according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>3.3. Various print control devices are checked, lubricated and maintained according to manufacturer's</p>

ELEMENT	PERFORMANCE CRITERIA
	<p>recommendations and enterprise standard operating procedures</p> <p>3.4. Basic maintenance is carried out according to OHS requirements</p>
<p>4. Carry out minor routine maintenance and programmed cleaning of cutting units</p>	<p>4.1. <b>Cutting</b> devices and knives are checked, lubricated, maintained and replaced according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>4.2. Machine bed is checked and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>4.3. Basic maintenance is carried out according to OHS requirements</p>
<p>5. Carry out minor routine maintenance and programmed cleaning of folding/collating units</p>	<p>5.1. Folding/collating system components are checked, lubricated and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>5.2. Machine bed is checked and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>5.3. Basic maintenance is carried out according to OHS requirements</p>
<p>6. Carry out minor routine maintenance and programmed cleaning of fastening units</p>	<p>6.1. Adhesive and mechanical fastening components are checked, lubricated and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>6.2. Machine bed is checked and maintained according to manufacturer's recommendations and enterprise standard operating procedures</p> <p>6.3. Basic maintenance is carried out according to OHS requirements</p>

## Required Skills and Knowledge

### REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit.

#### Required skills

- OHS in relation to operating machinery such as safely switching off machinery before cleaning is started
- communication of ideas and information by advising other staff of any problems found on the machines
- collecting, analysing and organising information by accessing machine manuals to determine maintenance and cleaning needs
- planning and organising activities by working to predetermined work schedules
- teamwork when working with the production manager to ensure maintenance and cleaning is done effectively with minimum disruption of production
- mathematical ideas and techniques by checking more complex machines with electronic, hydraulic or pneumatic technology
- problem-solving skills by recognising when maintenance and cleaning are required and responding appropriately (either carrying out maintenance or reporting it to responsible person)
- use of technology by performing routine maintenance on machines

#### Required knowledge

- reel handling system
- OHS requirements when maintaining and cleaning the reel handling system
- common causes of failure or breakdown
- precautions that must be observed when working with compressed air
- damage caused to electronic sensors during cleaning
- checks that were performed on this area of the machine
- particular chemical used for cleaning purposes
- sheet or object handling systems
- OHS requirements when maintaining and cleaning the sheet or object handling system
- common causes of failure or breakdown
- problems with inefficient cleaning
- parts of this area of the machine that require cleaning
- effect of excessive lubricant in this area of the machine
- need for regular maintenance of this area of the machine.
- printing units
- OHS requirements when maintaining and cleaning the printing units
- common causes of failure or breakdown
- problem that arises due to continual inefficient wash-up of roller surfaces
- necessity to clean the bearers on all cylinders in the printing unit

**REQUIRED SKILLS AND KNOWLEDGE**

- problems that could result from cylinder bodies not being cleaned correctly
- safety devices that were checked in the printing unit
- action if a safety device is found to be inoperative
- checks that must be carried out when replacing rollers in the inking system
- ancillary units
- OHS requirements when maintaining and cleaning ancillary units
- common causes of failure or breakdown
- checks that were performed on ancillary units
- precautions that should be observed when cleaning ancillary units
- cutting units
- OHS requirements when maintaining and cleaning the cutting units
- common causes of failure or breakdown
- checks that are carried out on cutting devices and knives
- storing of cutting knives after being replaced
- problems that would arise if the machine bed was not maintained
- problems that would arise if blades or knives were not maintained
- folding/collating units
- OHS requirements when maintaining and cleaning the folding/ collating units
- common causes of failure or breakdown
- components that were checked with this equipment
- problems with inefficient cleaning of the folding/collating unit
- parts of this machine that require cleaning
- type of lubricant used on this equipment and why
- fastening units
- OHS requirements when maintaining and cleaning the fastening units
- common causes of failure or breakdown
- chemicals that were used when cleaning this equipment
- disposal of used chemicals
- frequency this equipment should be cleaned
- problems that could be caused by inefficient cleaning
- parts of the equipment that should be cleaned
- the result of excessive lubricant in this part of the machine
- machine manuals, safety and other documentation that are relevant to this task and where are they kept and information that is included in these documents

## Evidence Guide

### EVIDENCE GUIDE

The Evidence Guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

#### Overview of assessment

#### Critical aspects for assessment and evidence required to demonstrate competency in this unit

Evidence of the ability to:

- correctly performing basic machine maintenance
- carry out routine maintenance on any TWO pieces of equipment or systems, satisfying job, workplace and statutory requirements according to the listed Performance Criteria
- evidence for assessment may be gathered from assessment of the unit of competency alone or through an integrated assessment activity.

#### Context of and specific resources for assessment

Assessment must ensure:

- assessment may take place on the job, off the job or a combination of these. Off the job assessment must be undertaken in a closely simulated workplace environment
- basic production machines.

#### Method of assessment

A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:

- direct questioning combined with review of portfolios of evidence and third party workplace reports of on-the-job performance by the candidate.

#### Guidance information for assessment

Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.



## Range Statement

RANGE STATEMENT	
<p>The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.</p>	
<b><i>Maintenance procedures</i></b> may include:	<ul style="list-style-type: none"> <li>• should meet manufacturer's specifications and requirements.</li> </ul>
<b><i>Inks/coatings</i></b> may include:	<ul style="list-style-type: none"> <li>• range of standard and specialty inks and specialty finishes such as wax, embossing, foils.</li> </ul>
<b><i>Supervision</i></b> may include:	<ul style="list-style-type: none"> <li>• the work is carried out under minimal supervision, exercising initiative and judgement with discretion. Occasional supervision of the work of other personnel may be required.</li> </ul>
<b><i>Cutting units</i></b> may include:	<ul style="list-style-type: none"> <li>• range of semi-automatic and automatic folding, collating and inserting units, in-line or off-line operation.</li> </ul>
<b><i>Machines</i></b> may include:	<ul style="list-style-type: none"> <li>• the operation may apply to a complex machine, various types of machines or all the machinery in a work area. Complex machines include those with electronic, pneumatic, hydraulic or robotics technology.</li> </ul>
<b><i>Printing process</i></b> may include:	<ul style="list-style-type: none"> <li>• all printing processes ie lithographic, flexographic, gravure, relief polymer mechanical printing.</li> </ul>
<b><i>Substrate types</i></b> may include:	<ul style="list-style-type: none"> <li>• range of substrates within the major categories of paper, pressure sensitive material, board, corrugated board, plastics and related films, or metal.</li> </ul>
<b><i>Substrate handling</i></b> may include:	<ul style="list-style-type: none"> <li>• wide and narrow reel and large and small sheet handling systems.</li> </ul>

## Unit Sector(s)

Unit sector	
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## Competency field

Competency field	Support
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## Co-requisite units

Co-requisite units		