

**Modification history**

Release	Comments
Release 2	This version released with PPM Pulp and Paper Manufacturing Training Package Version 2.0.
Release 1	This version released with PPM Pulp and Paper Manufacturing Training Package Version 1.0.

PPMFCO340	Troubleshoot and rectify finishing and converting systems
<b>Application</b>	<p>This unit of competency describes the skills and knowledge required to identify and rectify faults and report on system performance and product quality data, related to finishing and converting systems, in a pulp or paper manufacturing facility.</p> <p>This unit applies to senior operators and production specialists who troubleshoot and rectify finishing and converting systems. This typically involves working in a facility with complex integrated equipment and continuous operations. Finishing and converting operations describe a range of systems and subsystems, including winding and re-winding, decorating, lotionising, calendering, water marking, perforating, slitting and cutting, embossing, laminating, folding, printing, bonding, core making, wrapping and packing.</p> <p>No licensing, legislative, regulatory, or certification requirements apply to this unit at the time of publication.</p>
<b>Prerequisite Unit</b>	Nil
<b>Unit Sector</b>	Pulp and Paper Manufacturing (PPM)

Elements	Performance Criteria
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Identify and analyse causes of systems and quality faults	1.1 Identify system or quality faults in finishing and converting systems in accordance with production requirements, relevant workplace health and safety procedures, risks and hazards identification and environmental workplace procedures 1.2 Monitor control system readouts to identify process variations 1.3 Interpret trends and warning devices to determine fault type and location 1.4 Interpret quality checks to identify variations from operating specifications or schedule 1.5 Identify and locate cause and source of the problem 1.6 Access and interpret relevant sources of information, as required to assist analysis 1.7 Select, fit, use and maintain personal protective equipment according to job requirements and task to be undertaken
2. Rectify system faults	2.1 Shut down equipment and implement isolation procedures prior to fault rectification according to work health and safety and standard operating procedures 2.2 By-pass, repair or replace faulty equipment 2.3. Make corrective operational adjustments and undertake operator level maintenance requirements 2.4. Restore machine or system to normal operation and communicate to relevant personnel
3. Rectify product quality faults	3.1 Identify product quality faults by observation or quality checks 3.2 Undertake sampling and conduct required tests 3.3 Interpret test results and adjust process required to rectify product quality faults 3.4 Take appropriate action to rectify and report non-conforming product

<b>Elements</b>	<b>Performance Criteria</b>
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
4. Record and report process performance and product quality data	4.1 Record variations from process specifications and troubleshooting actions according to organisational requirements 4.2 Document indications from performance variation 4.3 Communicate relevant information to appropriate personnel

<b>Foundation Skills</b>	
<i>This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria.</i>	
<b>Skill</b>	<b>Description</b>
Reading	<ul style="list-style-type: none"> <li>Interpret documentation, procedure manuals and test results</li> </ul>
Writing	<ul style="list-style-type: none"> <li>Record and report test results and rectifications accurately and legibly using correct technical vocabulary</li> <li>Access, navigate and enter computer based information</li> </ul>
Oral communication	<ul style="list-style-type: none"> <li>Select and use appropriate spoken communication strategies with work colleagues and other personnel on site</li> </ul>
Numeracy	<ul style="list-style-type: none"> <li>Interpret instruments, gauges and data recording equipment</li> </ul>
Navigate the world of work	<ul style="list-style-type: none"> <li>Use electronic and other control systems to control equipment and processes and make appropriate adjustments for finishing and converting processes</li> </ul>
Get the work done	<ul style="list-style-type: none"> <li>Maintain situational awareness in the work area</li> <li>Analyse and use sensory information to adjust process to maintain and co-ordinate safety, quality and productivity</li> </ul>

<b>Unit Mapping Information</b>			
<b>Code and title current version</b>	<b>Code and title previous version</b>	<b>Comments</b>	<b>Equivalence status</b>
PPMFCO340 Troubleshoot and rectify finishing and converting systems Release 2	PPMFCO340 Troubleshoot and rectify finishing and converting systems Release 1	Performance criteria added, minor changes to knowledge evidence	Equivalent unit

<b>Links</b>	Companion Volumes, including Implementation Guides, are available at VETNet: <a href="https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93">https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93</a>
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<b>TITLE</b>	<b>Assessment requirements for PPMFCO340 Troubleshoot and rectify finishing and converting systems</b>
<b>Performance Evidence</b>	
<p>An individual demonstrating competency must satisfy all of the elements and performance criteria in this unit. There must be evidence that the individual has:</p> <ul style="list-style-type: none"> <li>• analysed and rectified finishing and converting processes and systems, at least twice in line with required enterprise intervals</li> <li>• selected and used appropriate troubleshooting methods in finishing and converting systems</li> <li>• identified and rectified faults in plant, equipment and product quality and system performance, relevant to finishing and converting processes</li> <li>• used electronic and other control systems, including portable control devices, touch screens or robotics to control equipment and processes as required during troubleshooting</li> <li>• communicated effectively and working safely with others in the work area when rectifying finishing and converting systems.</li> </ul>	

<b>Knowledge Evidence</b>	
<p>An individual must be able to demonstrate the knowledge required to perform the tasks outlined in the elements and performance criteria of this unit. This includes knowledge of:</p> <ul style="list-style-type: none"> <li>• organisational procedures relevant to workplace health and safety with particular emphasis on: <ul style="list-style-type: none"> <li>• use of personal protective equipment (PPE)</li> <li>• equipment lock out and isolation procedures</li> <li>• handling chemicals and hazardous substances, including spill and disposal guidelines</li> <li>• plant clearance requirements</li> <li>• emergency procedures and responses</li> <li>• job safety analysis documentation and processes</li> <li>• plant permit systems and processes</li> <li>• high risk load shifting licensing requirements where relevant</li> <li>• major hazard facility requirements where relevant</li> </ul> </li> <li>• documentation and workplace procedures relevant to troubleshooting and rectifying finishing and converting systems in the pulp and paper industry and including: <ul style="list-style-type: none"> <li>• standard operating procedures (SOP)</li> <li>• production needs including output targets, production scheduling quality requirements, resources and energy use, waste minimisation</li> <li>• quality procedures</li> <li>• environmental sustainability requirements/practices</li> <li>• machinery and plant manufacturing operating manuals</li> <li>• enterprise policies and procedures</li> <li>• safety data sheets</li> <li>• SOP, risks and hazard identification and housekeeping</li> <li>• maintenance logs, job sheets and production instructions</li> <li>• process and instrument diagrams</li> </ul> </li> <li>• finishing and converting system, processes and associated services sufficient to troubleshoot including: <ul style="list-style-type: none"> <li>• plant layout</li> <li>• principles of operation</li> <li>• causes and effects of adjustments made to finishing and converting plant and processes</li> <li>• relationships between finishing and converting systems, processes and associated services</li> </ul> </li> <li>• materials used in finishing and converting processes which includes parent roll or reel, lotion, shrink and stretch wraps, pallets, sheet paper, labelling and stencilling, wrap paper, customer rolls, boxes, polythene wrap, glues, cartons, strapping, printing, inks, shippers, reams, signs and labels, core board, scent and rolls</li> <li>• quality tests and checks used in finishing and converting processes which includes roll density, core slippage, damaged packaging, reel hardness, core size, colour matching, bulk, core strength, sheet size, roll appearance, print quality, cut quality, machine direction and cross direction tensiles, core scenting, packaged product, stretch, roll size, perforations, product identification and warehousing records</li> <li>• troubleshooting methods applicable to the operation of finishing and converting systems</li> </ul>	

### Knowledge Evidence

- sampling and testing for plant and system operations, and process monitoring - purpose, standards and procedures as per site agreements
- electronic and other control systems, operation and application to make appropriate adjustments that control finishing and converting processes, within level of responsibility.

### Assessment Conditions

Assessment of skills must take place under the following conditions:

- physical conditions:
  - a workplace or a productive environment that accurately reflects performance in a workplace
- resources, equipment and materials:
  - access to the full range of tools, equipment and resources involved in integrated continuous manufacturing of finishing and converting operations in a pulp or paper manufacturing facility
  - electronic control systems which includes portable, touch screens or robotics
  - PPE required for operating finishing and converting systems
- specifications:
  - sample workplace documentation on workplace health and safety procedures, risks and hazards identification procedures, environmental and safe working requirements/practices, SOP and housekeeping requirements.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

### Links

Companion Volumes, including Implementation Guides, are available at VETNet:  
<https://vetnet.education.gov.au/Pages/TrainingDocs.aspx?q=12998f8d-d0ac-40bc-a69e-72a600d4fd93>