National Occupational Standards

Sector: POST PRESS (FINISING) PROCESSES
Occupation: SENIOR MACHINE OPERATOR
MQF Level: 3

Units:
- **POSSMO 301** - Improve individual and team performance at work.
- **POSSMO 302** - Control maintenance of equipment
- **POSSMO 303** - Posses advanced knowhow of printing materials; pre-press and press processes.
- **POSSMO 304** - Run in-line finishing machines.
**POSSMO301: IMPROVE INDIVIDUAL PERFORMANCE.**

*In order to compete successfully, printing companies need to be constantly vigilant on their quality as well as to keep up to date with technology and best practice. One of the ways in which organisations improve is by helping their people to acquire new skills and knowledge either individually or as part of a team.*

**Performance Criteria**

Level 3 post-press senior machine operator must have the necessary skills and knowledge to:

1. Review and evaluate the success of objectives of personal performance.
2. Review and evaluate the success of team performance objectives.
3. Ensure feedback from colleagues and customers is taken into consideration for effective teamwork.

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<th>Required Knowledge</th>
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<tr>
<td><strong>Level 3 Post-press senior machine operator must know and explain:</strong></td>
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<td>1. The principles of personal development, planning and training.</td>
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<td>2. The main features of quality assurance and quality control.</td>
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<td>3. The different type of resources including labour, materials and machinery and how these can be used to maximise productivity.</td>
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<td>4. The relationship between resource usage and profitability.</td>
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<td>5. The relationship between productivity and competitiveness.</td>
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<td>6. Customers’ requirements towards service and quality assurance.</td>
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<th>Required Skills</th>
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<td><strong>Level 3 Post-press senior machine operator must be able to:</strong></td>
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<td>1. Evaluate and develop own skills and expertise.</td>
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<td>2. Improve customer service delivery and check that the given service meets customers’ needs and expectations.</td>
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<td>3. Improve quality, productivity and team working within the organisation:</td>
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<td>a. Periodically identify possible improvements to the quality of the organisation’s products, services or productivity by improvements to personal skills or expertise; team’s systems or procedures of work; team’s resources;</td>
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<td>b. Liaise with the management on identified improvements to quality, productivity and team working;</td>
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POSSMO302: CONTRIBUTE TO MAINTAINING EQUIPMENT IN WORKING ORDER.

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situations.

Level 3 post-press senior machine operator must have the necessary skills and knowledge to:
1. Maintain equipment in working order as per instructions.
2. Distinguish between the components that need replacing, whether they are to be replaced machine parts or consumables, depending on the job’s responsibilities and report accordingly.

Required Knowledge

Level 3 post-press machine operator should know and explain:
1. The job’s reference and the limits of responsibility in maintenance and cleaning actions.
2. The health and safety aspects of and risks of handling cleaning materials, lubricants and equipment.
3. The importance of the team’s awareness to health and safety matters including the proper use of protective equipment.
4. The maintenance and production schedule for the machine.
5. The importance to use cleaning methods and materials that are safe, avoid harming the environment and meet manufacturers’ requirements.
6. Company’s procedures for the safe disposal of waste.
7. The risks of handling machinery and replacing components.
8. The techniques to use in assessing machine faults and to decide how to solve the respective faults.
9. The types of faults, which are likely to occur in the equipment.
10. Correct reporting procedure of faults and disruption to production.
11. The importance to take the minimum time necessary to rectify faults.
Level 3 post-press senior machine operator must be able to:

1. Plan cleaning operations to balance maintenance and production requirements.
2. Obtain the correct materials and equipment need for maintenance.
3. Communicate clearly with colleagues to ensure:
   a. maintenance programme is done on time and without undue delay;
   b. cleaning materials and equipment are used in a way to minimise waste and pollution;
   c. cleaning agents and waste materials are disposed of correctly;
   d. machines are free from waste and cleaning materials following maintenance or cleaning operations;
   e. machines are safe to operate following maintenance operations.
4. Safely diagnose and correct machine faults that are within the job’s responsibility.
5. Report promptly machine faults which fall outside the job’s responsibility.
6. Report accurately the estimated down time needed to rectify those faults, which are stopping production.
7. Report accurately the details of machine faults and production down time.
POSSMO303. UNDERSTAND PRINTING MATERIAL, PRE-PRESS AND PRESS PROCESSES.

The candidate must show that all of the statements in each element have been covered and must be the result of real work activities in actual production situation.

Performance Criteria
The candidate must have the necessary knowledge and skills to:
1. Identify the difference between the variety of modern communication technologies.
2. Identify the difference between the types of print media and the differences in paper.
3. Have knowledge of the processing line from pre-press to post-press on the company.

Required Knowledge
Level 3 post-press senior machine operator must know and explain:
1. The technologies available to convey information.
2. The ability of the printing industry to use different media to convey data or information.
3. The different printing substrates available.
4. Basic paper specifications.
5. The production processes available within the company and the sequence of work from pre-press to post-press.
6. The common problems arising from previous operations.
7. The principles of the post-press processes and the sequence of set-up and production tasks of the different post-press machines.
8. The post-press production requirements for the different types of work in the company.
9. The difference between the different materials and the appropriate use of these materials according to the type of work.

Required Skills
Level 3 post-press senior machine operator must be able to:
1. Identify the different forms of communication technologies (print, electronic and multi-media).
2. Distinguish between the different types of print media used.
3. Distinguish between the range of printing substrates available for printing.
4. Specify and relate to the paper specifications according to international or industry’s units of measurement.
5. Relate to the processing line from pre-press to post-press in the company.
6. Identify and tackle the problems that could arise in production. Report to superior where necessary.
Printing and Digital Media SSU:  
Post-Press (Finishing) Processes – Machine Operator – MQF Level 3

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<th>POSSMO 304: RUN IN-LINE FINISHING MACHINES.</th>
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Performance Criteria
The candidate must have the necessary knowledge and skills to:
1. Be able to handle, use and store the printing plates correctly.
2. Assist in the operation of a pre-press machine effectively.
3. Identify machinery faults and act accordingly.

Required Knowledge
Level 3 post-press senior machine operator must know and explain:
1. Details and requirements of the job.
2. The printing machines used in the company and the related plate sizes.
3. The risks associated with working on computers and plates setting machinery.
4. The commonly occurring faults with printing equipment – what causes them and how to prevent them.
5. The safe operation of pre-press machinery and emergency shut down procedures.
6. How to send, receive and retrieve data files.
7. The principles of artwork design and requirements for the printing and post-press processes.
8. The company’s reporting procedures and sources of advice.
9. How to assist others who are rectifying faults on the machine.

Required Skills
Level 3 Post-press senior machine operator is able to:
1. Check the details needed for the job.
2. Regularly check that the company’s quality standards are met.
3. Promptly report to management if the materials provided are not correct or sufficient.
4. Set, run and produce finished work from in-line finishing machines so that:
   a. sections are inserted or signatures collated to give the correct page sequence;
   b. sections and covers are fed in register, squarely and without damage;
   c. books are made up of complete number of sections and cover;
   d. books hold firmly and are securely bound;
   e. books are finished evenly and squarely to the correct size;
   f. books are delivered without marking; damage or distortion.
5. Produce a sample from the machine and check that it meets the required standards.
6. Accurately identify the causes of production faults which result in:
   a. inserted sections or collated signatures out of register to each other or to book cover;
   b. sections or cover missing;
   c. improper binding strength or quality;
   d. marks on book spines or on inside pages;
   e. incorrect or out of register trimming.
7. Make adjustments on the machine and check that it matches the required standards
8. Promptly and accurately report quality defects to the manager.
9. Check that the machine is safe to operate once quality defects have been corrected.
10. Accurately record the quality assurance details.