



Australian Government

Assessment Requirements for ICPPRN551

Set up for specialised relief printing

Release: 1

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Modification History

Release	Comments
Release 1	This version first released with ICP Printing and Graphic Arts Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- safely set up a relief printing machine for specialised printing on TWO occasions, using different substrates and including at least two in-line processes, according to manufacturer's and job specifications, enterprise procedures and the performance criteria
- set up reel- or sheet-fed platen, cylinder or rotary printing machines for specialised print jobs including conducting a proof run and adjusting settings to ensure production speeds are attained
- find and use information relevant to the task from a variety of information sources.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- explain why it is important that job specifications are read and properly understood
- discuss production problems that might occur if job specifications are not read and properly understood
- name the person to discuss any production problems with
- outline the importance of printing plate hardness
- list faults that may be detected on new plates
- identify type of solvents used on photopolymer plates
- define V-block mounting
- explain how V-block mounting is achieved
- discuss the purpose of binding plates after mounting
- list checks to perform prior to cylinder installation
- explain precautions to ensure plate/cylinders are not damaged during installation
- list WHS precautions for preparing inks and additives

- list details to check for an ink's suitability for the printing process
- describe any special end-use requirements that may be necessary
- discuss additives and their use in inks
- explain the use of a spectrophotometer to assess colour of an ink
- outline the formula for calculating correct quantity of lithographic ink
- describe the print fault likely if excessive driers are mixed into the ink
- identify precautions to minimise waste when preparing the ink
- explain shelf life of most inks
- discuss conditions relevant to storage of inks and additives
- describe conventions for labelling mixed inks
- list major WHS concerns of setting up the machine
- list the order eccentric or concentric roller adjustments should be made in
- discuss the width of the contact stripe between two rollers when setting rollers
- discuss how to determine the ink duct setting
- explain the ideal ink duct sweep setting
- outline recommended degrees shore hardness for forme rollers
- name various types of ink drying/curing systems
- explain the operation of the true inch function fitted to some machines
- identify problems that may cause the machine to keep stopping
- list necessary checks prior to engaging the impression
- outline checks performed when running the machine
- describe the effect of the position of certain guards on the operation of the machine
- explain importance of communicating steps involved in operating the machine to other team members
- identify aids available for testing the machine proof
- explain what tests are necessary for an individual job
- identify where testing should take place
- describe the function of a polarisation filter in a densitometer
- explain ideal conditions for inspecting the proof
- explain the cause of a halo effect on the image
- identify methods available to check and adjust ink colour and consistency
- discuss adjustments that may cause mis-register
- outline adjustments made to position the image laterally
- outline adjustments made to position the image circumferentially
- describe the effect of changing the colour sequence on the final colour cast
- explain the difference between mechanical and optical dot gain
- explain the cause of excessive mechanical dot gain
- name who has responsibility for the final say in the OK of the job
- discuss in-line processes used in specialised pad printing
- identify machine manuals, safety and other documentation relevant to this task and where they are kept, and describe the information in them.

For reel systems only

- describe how to determine position of the reel
- discuss what happens if brake tension is not set correctly
- explain the function of the 'dancer' roller on a web machine
- outline the function of nip rollers
- discuss what happens if the web is not spliced correctly
- explain how the web is controlled in the rewind unit
- outline the function of a slitter on a web machine
- list problems attributable to a blunt knife when sheeting
- list the main reason for blistering on a heatset machine
- explain how the drying unit cures the ink

For sheet systems only

- list the major work health and safety (WHS) concerns of setting up the sheet transportation system
- explain the cause of more than one sheet being picked up in the feeder
- explain why accurate feeder set up is essential
- describe what determines position of the sheet prior to being transferred to the printing unit
- outline how to determine which front lays to use
- identify the type of substrate that requires additional front lays to be engaged
- explain the need for additional front lays when printing this type of substrate
- identify the most important WHS precaution to observe when setting up the delivery
- List WHS precautions for removing sheets from the delivery
- explain the cause of sheets being delivered incorrectly
- outline necessary adjustments if changing from lightweight to heavyweight stocks
- explain what determines sheet release into the delivery
- identify problems from excessive use of anti-set off spray powder
- explain what causes printed sheets to set off in the delivery
- describe how to reduce the possibility of set off in the delivery
- explain how air blast can assist sheet delivery
- explain how much packing is required in the tympan
- explain how the level of printing pressure is determined
- explain the ideal condition of the tympan
- discuss how to achieve the correct top sheet tension when fitting a new tympan
- identify print faults that can occur if the tympan is not tensioned correctly
- discuss the need to use visual aids on the printed sheets
- explain the procedure to lengthen print length on this type of press
- explain the procedure to shorten print length on this type of press
- explain the importance of keeping machine frames and unit slides clean
- list WHS precautions for installing printing cylinders in the machine

- explain how to determine the optimum print sequence
- point out the visual aid on the plate that identifies the colour of ink to be used
- list WHS precautions for webbing up the machine
- discuss remedial steps to take if there is a possibility of the ink marking in the rewind sheet delivery system on a sheet-fed machine

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the printing field of work and include access to a reel- or sheet-fed platen, cylinder or rotary printing machine.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a74b7a0f-a253-47e3-8be0-5d426e24131d>