GQA LEVEL 2 NVQ CERTIFICATE IN MACHINE PRINTING

Qualification Number
600/0600/6

Welsh Qualification Number
C00/1250/3

PERSONAL COMPETENCE SUMMARY

Name		Company/Centre	
Job Title		GQA Registration Number	

UNITS OF COMPETENCE					ASSESSOR SIGNATURE Performance and knowledge assessment completed and supplemented with evidence overtime	DATE
Unit Number	**Mandatory Units**		**Level**	**Credit**		
H/601/9394 PR997	Communicating and Working with Others in the Print Working Environment		2	3		
F/601/9399 PR250	Keep Equipment Clean and in Working Order for use in the Printing Industry		2	4		
R/601/9407 PR996	Knowledge of the Organisations Printing Processes and related information		2	4		
Y/601/9389 PR001	Maintain Health and Safety within a Print Related Working Environment		2	4		
Y/601/9408 PR995	Set up and run machinery within the Print Industry		2	10		
Optional Units (Optional - Credits: 7 Minimum)						

RELIABLE EVIDENCE: The forms of evidence available include (mark as appropriate)

Observation in the workplace ☐	Assessment of knowledge ☐
Records of prior experience ☐	Witness statement(s) ☐
Testimonial(s) ☐	Photographic evidence ☐
Work records ☐	External testing ☐

Passport Style
Candidate Photo
(Mandatory)

COMPETENCE COMPLETION SIGNATURES

By signing here, the Candidate and Assessor confirm that evidence presented is authentic and that the assessments took place in accordance with the relevant assessment strategy. Details of the assessments and evidence must be recorded in the assessment decision record/summaries at the end of each unit.

	Name and Signature	Date
Candidate		
Lead Assessor		
IQA		
EQA		

Introduction to the Qualification

Who is this Qualification for?

This qualification is aimed at those who work as machine operatives (minders) on single and multi unit production printing presses. Assessment of the qualification can take place in occupational roles that include: Lithography (Sheet-fed) Printing, Lithography (Web-fed) Printing, Flexography Printing, Gravure Printing and Screen Printing and this will be reflected on the Qualification Certificate. The standards cover the most important aspects of the job. This qualification is at Level 2, and should be taken by those who are fully trained to deal with routine assignments. Candidates should require minimum supervision in undertaking the job. A further qualification for machine printing at Level 3 is also available. In addition, there are qualifications available to cover Print Finishing and Pre-press. Candidates for this qualification will need to contribute to Company objectives, follow Health and Safety guidelines and in addition candidates for this qualification will primarily be:

• Acting as first or second minders on the Press
• Involved in the set up and running, maintenance and wash down of single and multi colour production machines
Candidates are likely to have jobs entitled;
• Machine minder
• No 1s/No 2s
• Machine operative

What is required from candidates?

GQA qualifications are made up of a number of units that have a credit value or credits. These credits must be achieved in the correct combination from mandatory and optional units: this qualification has 5 mandatory units and a group of optional units. Candidates should achieve all credits from the 5 mandatory units, plus a minimum of 7 credits from the group of optional units. This makes the minimum credit value of the qualification 32 credits. The group of optional units is intended to allow all those involved in Machine Printing to achieve the full qualification: when choosing from the optional units it is important to ensure the units selected are appropriate and achievable within your job role. The units are made up of the things you need to know and the things you need to be able to do to carry out your job safely and correctly. These are called Learning Outcomes, and all must be met to achieve the unit.

Qualifications are now required to indicate the total qualification time (TQT), this is to show the typical time it will take someone to attain the required skills and knowledge to meet the qualification criteria, this qualification has a TQT of 320 hours. Qualifications are also required to indicate the number of hours of teaching someone would normally need to receive in order to pass the qualification. These are referred to as Guided Learning Hours (GLH). The GLH for this qualification is 209.

Unit Ref	Mandatory Units	Level	Credit
H/601/9394	Communicating and Working with Others in the Print Working Environment	2	3
PR997			
F/601/9399	Keep Equipment Clean and in Working Order for use in the Printing Industry	2	4
PR250			
R/601/9407	Knowledge of the Organisations Printing Processes and related information	2	4
PR996			
Y/601/9389	Maintain Health and Safety within a Print Related Working Environment	2	4
PR001			
Y/601/9408	Set up and run machinery within the Print Industry	2	10
PR995			
Optional Units (Optional - Credits: 7 Minimum)			
A/601/9403	Set and Run ancillary printing machine equipment	2	5
PR254			
D/601/9412	Prepare and Maintain Image Carriers for Printing	2	4
PR257			
F/601/9404	Set and Run over-printing machinery	2	7
PR255			
J/601/9405	Set and use ink drying equipment	2	3
PR256			

K/601/9400	Make lithographic printing plates	2	4
PR251			
M/601/9401	Prepare Inks and Coatings for Printing	2	4
PR252			
T/601/9402	Set and Run numbering, bar-coding or inline data printing equipment	2	4
PR253			
F/601/9418	Set and run in-line converting or enhancing equipment	2	7
PR262			
H/601/9413	Set and Run Die Stamping Printing Machinery	2	6
PR260			
J/601/9419	Set and Run in-line folding equipment	2	7
PR263			
J/601/9422	Set and run auto-packing, storage or palletising equipment	2	3
PR265			
K/601/9414	Set and use reel handling equipment	2	3
PR261			
R/601/9424	Prepare and load sheet-fed substrates	2	3
PR266			
L/502/8502	Output Digital Image Carriers for Print	2	8
PR129			
A/601/9417	Set and Run Guillotines	2	5
PR357			
H/601/9430	Set and run booklet making machinery	2	5
PR356			
F/502/8626	Set and run in line automated stitch and trim equipment for newspaper and periodical production	2	4
PR310			
Y/601/9392	Materials Handling, Transportation and Storage within the Print Working Environment	2	4
PR312			
R/601/9410	Set and run slitting and re-reeling equipment adhesive label production	2	3
PR408			
M/502/8508	Prepare Stencils for Printing	2	4
PR219			
D/502/8505	Make photopolymer plates for flexographic printing	2	4
PR105			

Achieving the combination of Mandatory units and the correct choice of Optional credits will mean the qualification has been completed and GQA will provide the Certificate with the qualification title. Where a candidate has completed additional credits the Certificate will list these as "additional credits", in cases where the candidate has not completed the full qualification and will not go on to do so, a Certificate of credit can be issued for the credits achieved.

Assessment guidance:

Evidence should show that you can complete all of the learning outcomes for each unit being taken.

Types of evidence:

Evidence of performance and knowledge is required. Evidence of performance should be demonstrated by activities and outcomes, and should be generated in the workplace only, unless indicated under potential sources of evidence (see below). Evidence of knowledge can be demonstrated though performance or by responding to questions.

Quantity of evidence:

Evidence should show that you can meet the requirements of the units in a way that demonstrates that the standards can be achieved consistently over an appropriate period of time.

Potential sources of evidence:

The main source of evidence for each unit will be observation of the candidate's performance and knowledge demonstrated during the completion of the unit. This can be supplemented by the following types of physical or documentary evidence:

- Accident books/reporting systems
- Notes and memos
- Photographic/video evidence
- Job bags/works instruction tickets

- Job samples
- Customer feedback (internal or external)
- Witness testimonies
- Production records

Examples of evidence could include:

- Assessor observation reports
- Printed output (good and fault copies)
- Witness testimonies
- Job bags/work instruction

- examples of maintenance and/or records
- examples of component replacement and/or records Accident Reporting systems
- Use of equipment inc PPE

- Tutor and Employer feedback/reviews
- Photographic evidence
- Professional discussion
- Responses to oral and written questions tickets/production records
- Written narrative
- Emergency procedures, risk assessments,

Please Note that photocopied or downloaded documents such as manufacturers' or industry guidance, H&S policies, Risk Assessments etc, are not normally acceptable evidence for GQA qualifications unless accompanied by a record of a professional discussion or Assessor statement confirming candidate knowledge of the subject. If you are in any doubt about the validity of evidence, please contact your GQA EQA.

GQA Qualification Implementation Requirements covering Centre Approval, Candidate Assessment and ongoing Quality Assurance

This document indicates the requirements of Approved Centres delivering GQA qualifications and / or units of credit.

1. Equality of Opportunity

Equality of access to fair and valid assessment is necessary for all candidates undergoing assessment. This may mean making reasonable adjustments to normal assessment methods for candidates with particular or special assessment requirements. Candidates work patterns should not become a barrier to assessment, the organisation of which may have to be flexible. In the same way, reasonable adjustment arrangements may be necessary for candidates with a disability. For example, a candidate who is unable, through disability, to produce oral or written evidence, may be allowed to use the method they normally use as a substitute for the required form of communication. Reasonable adjustments need to be approved by GQA.

2. Recognised/Approved Assessment Centres

2.1 Individual centres must be approved by GQA to offer specific qualifications and / or units of credit. A centre may be a single organisation or a partnership of two or more organisations. It may operate at a single location or have satellites. For further details see the GQA booklet "Guide to Centre Approval". The Centre Approval process is carried out by a GQA approved EQA. Each Centre must maintain a centre file. It is important to be clear what the steps in the assessment process are:
• plan evidence collection and opportunities for assessment
• collect evidence
• judge evidence
• determine whether sufficient evidence has been presented
• make an assessment decision and give feedback to the candidate

NB Any deviation from the norm must be approved by a GQA EQA

2.2 Assessors and Verifiers

All Assessors of candidate performance must be competent, to make qualitative judgements, both in the skills they are assessing and in the assessment of candidates and hold the appropriate Assessor national award. Assessor occupational knowledge related to the qualifications being assessed is essential and must be illustrated to GQA prior to approval.

IQA's are responsible for the quality assurance of the assessment process within a centre. They should have a relevant occupational background, be competent in internal verification and hold the IQA national award. It is recommended that IQA's work towards national recognition of assessor competence.

EQAs are responsible for ensuring accurate and consistent standards of assessment across centres, qualifications, units of credit and over time. They should have a relevant occupational background, be competent in external quality assurance and hold the relevant national external quality assurance award. GQA will approve and licence all individuals involved in the assessment and verification of its approved qualifications and / or units of credit. Individuals who are working towards the Assessor or IQA national awards can only be provisionally licensed. The judgement of provisional licence holders will need to be agreed/authorised by a fully qualified and GQA licensed individual who cannot carry out a dual role in relation to a specific candidate.

All GQA Assessors and Verifiers must undertake a minimum of 2 significant CPD activities in both occupational areas and assessment and verification. Reflective CPD records must be maintained and made available to GQA EQA's for review.

2.3 Centre Approval, Monitoring Reviews and Quality Assurance

The centre recognition/approval process is the start of a significant part of the awarding body's quality assurance system. The Approval process will begin with an EQA review of centre procedures to ascertain the potential centres ability to deliver GQA qualifications and / or units of credit. Centres will be expected to meet the relevant regulatory authority criteria for delivery of qualifications prior to initial approval; continued compliance with the criteria will be monitored through regular EQA visits. It is recommended that centre reviews are conducted at minimum every six months by a GQA EQA.

New or multi-site centres may be required to undertake quarterly or more frequent EV reviews to ensure that different

locations can be seen to satisfy the national requirements.

GQA will ensure that unacceptable barriers relating to the assessment and internal verification of candidates in small companies do not deny recognition of competence to competent young workers. In such circumstances, GQA will demonstrate that its quality assurance procedures remain sufficient and rigorous to ensure that the competence outcomes have standing and credibility in the occupational area.

Enhanced quality procedures to ensure consistency of assessment and verification will be necessary and will include:
• a high level of sampling of assessment decisions N.B. In some instances the EQA may visit each assessment location and qualification / unit of credit candidate (e.g. single candidates dispersed throughout different small companies on government funded programmes)
• an in-depth scrutiny of assessment plans, materials and records
• specific centre guidance aimed at the successful implementation of qualifications and / or units of credit in SMEs via approved centre partnerships. This can include guidance on the quantity and quality of valid, authentic, and transferable evidence expected to be attributed to individual candidates
• ensuring centres are following the requirements prescribed in any appropriate assessment strategies and applicable codes of practice
• the identification and publication of good practice in centres

As part of the Quality Assurance process Proskills require an Enhanced external quality assurance process. This will be in the form of 1 significant underpinning knowledge question answered by the candidate for each unit of the qualification. The questions will be decided by GQA, and guideline answers must be submitted for approval and once approved kept in the Centre File to allow independent assessment

3. Qualification / Unit of Credit Candidates

All candidates must register with a GQA recognised/approved centre. The centre must maintain appropriate candidate personal details for external audit purposes etc.

The centre will provide candidates with advice and guidance on how to prepare for assessment and allocate an Assessor who will assess candidate ability to meet the requirements of the relevant qualifications / unit of credit. It is the candidate's responsibility to demonstrate competence and to do this they must:
• prove they can consistently meet all the qualification and / or unit of credit criteria
• provide evidence from work, that they can perform competently in all the contexts specified in the qualification / unit of credit requirements
• prove that they have the knowledge and understanding required to perform competently, even where they have not provided evidence from the workplace

It is therefore critical that quality evidence is provided in a format to allow the Assessor to make a decision and for the IQA to audit/verify his/her decision.

4. Evidence

A qualification and / or credit is awarded when a person has achieved the necessary outcomes of the qualification and / or unit of credit.

The specific combination of units necessary to achieve a qualification is detailed in the qualification structure. Certificates of Unit Credit can be awarded when candidates achieve any one, or more, units from the qualification.

The evidence the candidate brings forward is primarily evidence of performance of what he/she can do, not just what he/she knows. The assessment criteria / qualification requirements are described within the qualification and / or unit of credit itself and can incorporate practical skills and knowledge.

The assessor's role is to judge each relevant item of evidence. Each must be judged against the qualification and / or unit of credit requirements. It is not sensible to collect evidence against individual criteria. Nor is it effective. If items of evidence were collected for each of the criteria, the candidate may have to produce many items of evidence, well above the number actually required. GQA recommend holistic assessment.

When judging each item of evidence, the assessor is deciding whether the evidence:
• is authentic – i.e. actually produced by the candidate
• meets the criteria
• relates as appropriate to a context defined within the qualification and / or unit of credit
• confirms that the candidate has the required underpinning knowledge

When the assessor makes a decision about the candidate's competence, he or she examines all the evidence available to determine:
• if the evidence, as a whole, covers all the evidence of achievement
• whether the evidence indicates consistency in competent performance
• whether there is enough evidence on which to base an inference of competence
The answer can only be:
• yes (the candidate is competent)

• no (the candidate is not yet competent)
• there is insufficient evidence to make a decision

Consistency means that the individual is likely to achieve the standard in their work role, in the different activities defined in the qualification and / or unit of credit over time and range of work. The assessor must judge how long a time period is enough to be confident that the candidate can perform reliably to the standard. Unsupported evidence i.e. based on a single assessment/visit will not normally prove consistency.

Performance evidence
Performance evidence can be what the individual actually produces, or the way the individual achieves the standard. One is called product evidence and the other process evidence.
Product evidence is tangible – you can look at it and feel it. Products can be inspected and the candidate can be asked questions about them.

In order to make a fair and objective assessment, the assessor must be able to answer the question: Is there sufficient evidence that the candidate can consistently meet the requirements of the qualification and / or unit of credit?
Process evidence describes the way the candidate has achieved an outcome – how they went about it. This may be, for example, the way the quality of products is checked or the way customer complaints are handled. This usually means observing the candidate in action.
Performance evidence may cover a number of outcomes. It makes sense to plan evidence collection so that what the candidate does, in the normal course of their job, can be related to different outcomes and units. The activities that clearly link to the qualification and / or unit of credit requirements are the things to concentrate on when planning evidence collection and assessment and when monitoring the candidate's progress. Look for opportunities in the candidate's job when evidence can be collected against a number of units at the same time.

Performance evidence can be:
• Naturally occurring – evidence produced in the normal course of work. Evidence of this sort is usually of high quality and reliable. It is also cost effective to collect naturally occurring evidence
• Taken from previous achievements – the candidate may be able to bring forward evidence from previous work experience to show that they are still competent to the standard.
• Evidence of prior achievement can be used when it can be shown to support a judgment that the candidate can still achieve the standard. So, the assessor must be satisfied that the evidence of prior achievement is sufficiently reliable to justify saying that the candidate is currently competent.
• Simulated – from circumstances specially designed to enable the candidate's performance to be assessed. Simulation is generally not acceptable. The exceptions to this are:
  o Dealing with emergencies
  o Dealing with accidents
  o Certain pre-approved real time simulators
  o Limited other procedures that cannot be practically performed in the workplace, and for which sufficient evidence can be collected through other means.

NB:It is not always possible or feasible to collect naturally occurring evidence. It is likely that some simulation may be needed, when it may take too long to wait for the evidence to arise e.g. it may be an aspect of performance which occurs infrequently. An example of this may be evidence of how to deal with emergencies i.e. it makes sense to look for evidence from sources other than naturally occurring ones, rather than for, say, waiting for the building to burn down. Centres must obtain GQA EQA approval prior to the use of simulation.

Knowledge evidence
Being able to achieve a standard requires the ability to put knowledge to work. The qualification and / or unit of credit indicates the knowledge each person should use if they are to perform competently.
It should not be necessary to test all of the candidate's knowledge separately; however, any exception to this would be detailed in the relevant Assessment Strategy. Performance evidence could show that the candidate knows what he or she is doing. When this is not the case, or if the assessor is not convinced from the performance evidence, it may be necessary to check the individual's knowledge separately.

Oral or written assessments must clearly provide a suitable means of checking the breadth and depth of an individual's knowledge. Assessors will need to judge the best mix of knowledge evidence according to individual circumstances. Knowledge evidence is useful when deciding the quality of performance evidence, but must not be used in isolation to judge competence or as an alternative to performance evidence. Care must be taken that candidate evidence is auditable and verifiable.

NB: These Qualification implementation guidelines are generic across the full range of GQA qualifications. Further guidance on acceptable evidence on each qualification will be found in the Introduction to the Qualification section of the candidate booklet

Candidate Declaration

Candidate Name..

Centre/Company Name...

Assessor(s) Name(s)...

I acknowledge receipt of this copy of GQA qualification booklet. The unit structure provides information on which units must be achieved to be awarded the qualification. The individual units detail the necessary requirements etc that I must achieve.

I understand that I will have an important role in preparing for and planning assessments and with guidance from the Assessor I will collect and record relevant evidence.

I have been informed of the appeals system, should I want to appeal against any part of the assessment process.

I understand the assessments will be carried out with regard to the company's/centre's Equal Opportunities Policy.

Candidate signature..

Date...

Production/Process Activity Guideline

To aid new or established workers, a centre may wish to describe a normal production/process activity relevant to the achievement of the national vocational qualification and identify which units/elements it will contribute to, e.g. the act of preparation for work, implementation and completion will contribute to a number of units of competence.

Production/Process Activity Relevant to the Achievement of this Qualification	Contributory to: Units/Elements

H/601/9394 PR997	Communicating and Working with Others in the Print Working Environment	Level 2	3 Credits

The aim of this unit is to provide the learner with the knowledge and skills to communicate and work effectively with others in the print working environment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.Ref.No		
1. Know what information to share with colleagues on your job role and why this is important.	1.1 Give 3 examples of information linked to your job role that needs to be shared with colleagues.			
	1.2 Explain why sharing information with colleagues is important.			
2. Be able to share information with colleagues.	2.1 Share information with colleagues using different methods, for example: • Face to face conversations • Company systems • Written notes • Drawings/sketches • Telephone (voice or text) • Email • Internet			
3. Know why it is important to respond promptly to requests.	3.1 Explain why it is important to respond promptly to requests from colleagues and customers and give 3 examples.			
4. Be able to respond promptly to requests from colleagues.	4.1 Respond promptly to requests from colleagues and/or customers to include the provision of: • Information • Physical assistance • Advice			
5. Know why good working relationships with colleagues are important and how barriers to this can be overcome.	5.1 Explain why good working relationships are important.			
	5.2 Give 3 examples of problems in developing and maintaining good working relationships with colleagues and suggest solutions.			
6. Be able to develop and maintain good working relationships with colleagues.	6.1 Develop and maintain good working relationships with colleagues.			

Assessor comments/feedback

F/601/9399	Keep Equipment Clean and in Working Order for use in the	Level 2	4 Credits
PR250	Printing Industry		

The aim of this unit is to provide the learner with the knowledge and skills to keep printing equipment clean and in working order within the print industry. It includes basic maintenance and problem solving.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to keep printing equipment clean.	1.1 Obtain and use cleaning equipment and materials in accordance with manufacturer's and Company guidelines.			
	1.2 Remove any build up of materials and dust in or around the machine.			
	1.3 Use personal protective equipment in accordance with Company guidelines and legislation.			
	1.4 Dispose of used cleaning agents and waste material in accordance with environmental regulations.			
	1.5 Check that the machine is safe to operate and all guards are fitted in accordance with manufacturer's and Company guidelines after cleaning.			
2. Be able to keep printing equipment in working order.	2.1 Identify the lubrication points on the machine and the manufacturer's recommended types of lubricant and lubrication intervals.			
	2.2 Carry out lubrication of the machine in accordance with Company schedules.			
	2.3 Examine machinery for worn or defective components.			
	2.4 Restore machine to a safe operating condition after replacing components or performing lubrication.			
3. Know how to keep printing equipment clean and in working order.	3.1 Explain how to obtain maintenance plans and schedules.			
	3.2 Explain how to record removal and replacement of components and lubrication of machinery.			
	3.3 Explain how to carry out the cleaning and/or replacement of filters.			
	3.4 Describe the type of machine faults that need to be referred to the responsible person and why.			
	3.5 List consumables that are likely to require periodic replacement.			
	3.6 List three components which they have replaced, explaining methods and tools.			
	3.7 Explain when and how to isolate the machinery to carry out the cleaning process.			
	3.8 Explain the reasons and benefits of regular cleaning and maintenance of machinery.			

Assessor comments/feedback

R/601/9407	Knowledge of the Organisations Printing Processes and related information	Level 2	4 Credits
PR996			

The aim of this unit is to provide the learner with the knowledge of the Organisation's processes, products and equipment and also knowledge of the specific Department(s) worked in by the learner.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Know the Departments within the Organisation and their area of responsibility.	1.1 List the Departments within the Organisation.			
	1.2 Explain the responsibilities of each Department.			
	1.3 Describe the job roles within each Department.			
2. Know the products produced by the Organisation.	2.1 List the products produced by the Organisation.			
	2.2 List the products produced by the specific Department(s) worked in.			
	2.3 Name the materials used to produce the printed product.			
3. Know the types of equipment used within the Organisation for print related work.	3.1 List 3 pieces of equipment/machinery used within the Organisation for print related work.			
	3.2 Explain the purpose of each piece of equipment/machinery given in answer to 3.1.			
4. Know the printing processes/operations used within the Department(s) worked in.	4.1 Name the printing processes/operations carried out within the Department(s) worked in.			

Assessor comments/feedback

Y/601/9389 PR001	Maintain Health and Safety within a Print Related Working Environment	Level 2	4 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to work safely in the print working environment and to be able to carry out the correct actions should an accident or emergency occur.

Learning outcome. The learner will:	Assessment criteria The learner can:	Evidence.Ref.No		
1. Know which health and safety acts, regulations and guidelines apply to the print working environment.	1.1 State which acts, regulations and guidelines apply to the Print environment.			
	1.2 Explain how these acts, regulations and guidelines apply in practice.			
2. Know how to carry out an assessment of hazards and risks in the print working environment and the types of hazards or risks that can occur.	2.1 Describe the steps in carrying out a risk assessment.			
	2.2 Give 3 examples of risk or hazards that can occur in the print working environment.			
	2.3 Explain the actions required when discovering unsafe working conditions.			
3. Be able to identify hazards and assess risks in the print working environment.	3.1 Carry out a risk assessment of the print related working environment.			
4. Know how to adopt safe working practices.	4.1 State the employer's and manufacturer's instructions available for equipment in the work area and how to access them.			
	4.2 Describe three tasks in the work area and the equipment and personal protective equipment (PPE) used.			
	4.3 Explain the choices of equipment and personal protective equipment given in the example above.			
	4.4 Explain what to do if the required PPE or tools and equipment are not fit for purpose.			
5. Be able to adopt and adhere to safe working practices.	5.1 Follow employer's and manufacturer's instructions on the safe use of equipment and materials.			
	5.2 Select and use personal protective equipment in accordance with Company guidelines and legislation.			
	5.3 Select and use tools and equipment in accordance with Company guidelines and legislation.			
6. Know how to ensure there is no unauthorised or unsafe access to the working area.	6.1 Explain how to establish who is authorised to enter the work area.			
	6.2 Explain how to establish if a person is authorised to enter the work area.			
	6.3 Explain how to ensure that authorised people entering the work area are kept safe.			
7. Know what to do in the event of accidents or emergencies.	7.1 Describe the Company procedures to follow in the case of an accident.			
	7.2 Describe the Company procedure to follow in the case of an emergency.			
	7.3 Describe the procedure for evacuating workers and visitors.			
	7.4 Describe the procedure for the reporting and recording of accidents and emergencies.			

Assessor comments/feedback

Y/601/9408 PR995	Set up and run machinery within the Print Industry	Level 2	10 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run machinery. It includes the need to understand how to make adjustments and solve problems with this type of equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to prepare a machine for production.	1.1 Check that all the details and materials for the job are available.			
	1.2 Accurately identify any post-printing requirements.			
	1.3 Make ready the machine for effective operation.			
	1.4 Obtain authorisation to being production in line with Company policy.			
2. Be able to prepare a machine for production.	2.1 Run the machine at the optimum speed.			
	2.2 Keep up the supply of materials and consumables throughout the run.			
	2.3 Check that quality standards and job specifications are met throughout the run.			
	2.4 Check production details are recorded.			
	2.5 Follow Company procedures for the removal of waste.			
	2.6 Stack work in accordance with Company guidelines.			
3. Know how to set up and run machinery.	3.1 Explain 4 things to check to ensure effective operation of the machinery.			
	3.2 Explain how to start up and shut down the machinery in: • Normal operation • Emergency situation			
	3.3 Explain where to obtain information on the setting and operation of machinery.			
	3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.			
	3.5 Explain when to monitor the quality of the output, give 3 examples of things to monitor.			
	3.6 Explain the Company procedure for the disposal of 2 types of waste.			
	3.7 Explain how to identify faults which: • Affect the quality of the products • Produce a shortfall in output • Create risk to health and safety			
	3.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

A/601/9403	Set and Run ancillary printing machine equipment	Level 2	5 Credits
PR254			

The aim of this unit is to provide the learner with the knowledge and skills to prepare and monitor the performance of printing machine equipment. Ancillary printing machine equipment is any piece of equipment which is associated with (and usually connected to) a printing machine but does not form part of the main printing machine itself.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set ancillary printing machine equipment for use.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required to meet the job specification.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set the ancillary equipment to meet the job specification.			
2. Be able to operate the ancillary equipment.	2.1 Operate the machinery at the required production speed, and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
3. Know how to set and run ancillary printing machine equipment.	3.1 Explain how to start up and shut down the machinery for: • Normal operation • Emergency situations			
	3.2 Explain 3 things to check to ensure effective operation of the machinery.			
	3.3 Explain where to obtain information on the setting and operation of machinery.			
	3.4 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.5 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

D/601/9412 PR257	Prepare and Maintain Image Carriers for Printing	Level 2	4 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare and maintain image carriers and related consumables (such as blocks, pads, plates, or engraved cylinders).

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to prepare image carriers for printing.	1.1 Identify and select the required image carrier(s) and any associated materials to meet the job specification.			
	1.2 Prepare the image carrier for use by fitting into/onto any externally-prepared carrier devices in accordance with Company guidelines.			
	1.3 Ensure the image carrier is located and fitted in accordance with Company guidelines prior to production.			
2. Know how to store image carriers.	2.1 Explain how and when to clean and protect an image carrier.			
	2.2 Explain how to report any image carrier wear or damage in line with Company procedures.			
	2.3 Explain the Company procedure for labelling and storing image carriers.			
3. Know how to prepare and maintain image carriers for printing.	3.1 Describe the operation of image carrier mounting equipment.			
	3.2 Describe the difference between direct and indirect image transfer, giving an example of each.			
	3.3 Give two examples of faults that can occur with image carriers, what causes them and how to correct them.			
	3.4 Describe the Company's quality control checks on image carriers.			
	3.5 Describe the Company's procedure for reporting faults.			
	3.6 Explain the types of image carriers used in the Company.			

Assessor comments/feedback

F/601/9404	Set and Run over-printing machinery	Level 2	7 Credits
PR255			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and operate printing machinery designed to print onto a pre-made product. It also includes problem solving.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set up a preprinting machine for production.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required for the job.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set the inserting equipment to meet the job specification.			
	1.5 Ensure the output meets the job specifications and Company quality standard prior to full production			
2. Be able to run over-printing machinery effectively.	2.1 Run the print machinery at the optimum speed.			
	2.2 Keep up the supply of materials and consumables throughout the run.			
	2.3 Check the quality standard and job specifications are met.			
	2.4 Record production and quality assurance details in line with Company requirements.			
	2.5 Follow the Company procedure for the removal of waste.			
3. Know how to set and operate over-printing machinery.	3.1 Explain how to obtain details of the work required.			
	3.2 Explain how to start up and shut down over-printing machinery in: • Normal operation • Emergency situation			
	3.3 Explain the Company procedure for obtaining authorisation to begin production and why this is important.			
	3.4 Explain the identification and assessment of printing options, including the stages in the printing process from pre-press to printed product.			
	3.5 Describe the operation of over-printing machinery.			
	3.6 Explain the principles of the over-printing process that is used.			
	3.7 Explain how to identify faults which: • Affect the quality of the image • Produce a shortfall in output • Create risks to health and safety			

Assessor comments/feedback

J/601/9405	Set and use ink drying equipment	Level 2	3 Credits
PR256			

The aim of this unit is to provide the learner with the knowledge and skills to be able to use ink drying or ink curing equipment associated with printing machinery. Common ink drying/curing equipment includes: Ultra Violet (UV), Infra Red (IR) and hot air.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set up ink drying equipment.	1.1 Check that the drying equipment is safe and ready for production.			
	1.2 Ensure the drying equipment is set to operate at the temperature or intensity required.			
2. Be able to maintain the quality of output from ink drying equipment.	2.1 Monitor that the output meets the required quality in accordance with job specification, for example: • Ink setting and hardening rates meet production requirements • The correct temperature is maintained throughout the run • The quality of the image is maintained during drying activities			
	2.2 Stack work in accordance with Company guidelines.			
3. Know how to use ink drying equipment.	3.1 Explain how to obtain the information required to operate the ink drying equipment effectively.			
	3.2 Describe how to start up and stop ink drying equipment for: • Normal use • Emergency situation			
	3.3 Explain the Company procedure for the safe removal of waste from ink drying equipment.			
	3.4 Describe 3 faults which can occur when operating ink drying equipment, what causes them and how to correct them.			
	3.5 Explain why it is important to check that there is no build up of material or combustible matter in or around the dryer.			
	3.6 Explain where and how to obtain the maintenance plan and operating procedures for the ink drying equipment.			
	3.7 Describe the Company's procedure for reporting faults.			

Assessor comments/feedback

K/601/9400	Make lithographic printing plates	Level 2	4 Credits
PR251			

The aim of this unit is to provide the learner with the knowledge and skills to be able to make lithographic printing plates and store them for reuse.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to produce lithographic printing plates.	1.1 Identify the required plate material for plate making.			
	1.2 Identify the required files and materials for exposing the plate to meet the job specification.			
	1.3 Check that the imaging/exposure and any online processing equipment is ready for operation.			
	1.4 Load the plate into the imaging/exposure equipment in accordance with manufacturer's instructions.			
	1.5 Begin the imaging/exposure of the plate in accordance with Company guidelines.			
	1.6 On completion of imaging/exposure, develop the plate to meet the job specification.			
	1.7 Check the plate for correct exposure, completeness of the image and free from physical damage or blemishes.			
2. Know how to maintain lithographic printing plates.	2.1 Explain how and when to clean and protect plates for re-use.			
	2.2 Explain the conditions and procedure for storage of plates.			
3. Know how to produce lithographic printing plates.	3.1 Explain the types of lithographic printing plates and their uses.			
	3.2 Explain the process of producing a lithographic printing plate			
	3.3 Explain 3 checks to make before beginning the production process.			
	3.4 Describe three common faults in plate making and plate processing, their causes and how to correct them.			
	3.5 Explain how and why, to report a fault that is not able to be corrected either due to lack of knowledge or lack of authority.			

Assessor comments/feedback

M/601/9401	Prepare Inks and Coatings for Printing	Level 2	4 Credits
PR252			

The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare printing inks and coatings for printing, either to achieve a specified colour or to alter the characteristics of the inks or coatings to suit the process conditions or substrate being printed.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to mix and match ink to meet the product specification.	1.1 Identify the mix and the inks required from the job instructions.			
	1.2 Obtain the required quantity and types of inks to make up the batch to meet the job specification.			
	1.3 Use Company procedures for estimating and measuring the quantities required to produce the required mix in the required batch size(s).			
	1.4 Produce the mix, following Company procedures.			
	1.5 Match a sample against the specification, using approved test methods.			
	1.6 Record product details in line with Company requirements.			
2. Know how to adjust viscosity and tack to suit materials or print conditions.	2.1 Explain the adjustments that can be made to viscosity or tack.			
	2.2 List suitable medium with which to adjust the viscosity and take.			
	2.3 Explain how to identify the required viscosity or tack has been achieved.			
3. Be able to store inks and coatings in accordance with Company procedures.	3.1 Store inks and coatings in containers and conditions in accordance with Company guidelines.			
	3.2 Ensure containers are marked in accordance with Company procedures.			
	3.3 Record the stock control details required by the Company.			

Assessor comments/feedback

M/601/9401 PR252	Prepare Inks and Coatings for Printing (continued)	Level 2	4 Credits

4. Know how to prepare inks and coatings for printing.	4.1 Explain where and how to obtain information on the job requirements.			
	4.2 Explain the operation of 2 of the following pieces of equipment: • Ink weighing and checking equipment • Viewing equipment • Spectrophotometers			
	4.3 Explain three common problems with inks and coatings, and their likely causes.			
	4.4 Explain the administrative procedure for recording and reporting faults/problems.			
	4.5 Explain quality assurance and control in relation to: • Techniques for controlling quality - testing, sampling • Equipment for controlling quality - light standards for colour viewing, spectrophotomers, colour reference book			
	4.6 Describe the types and characteristics of inks and coatings.			

Assessor comments/feedback

T/601/9402	Set and Run numbering, bar-coding or inline data printing equipment	Level 2	4 Credits
PR253			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and monitor numbering, bar-coding or inline data printing equipment. The numbering equipment may be conventional numbering 'clocks' or 'blocks' or ink-jet, thermal or laser technology.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set up numbering, bar-coding or non-impact printing equipment.	1.1 Obtain and check the job specification.			
	1.2 Determine the sequence, orientation and position of the number or data on the sheet.			
	1.3 For multiple sequential numbering, calculate the starting number for each number position.			
	1.4 Set the numbering device or print head to produce a clean image without causing physical damage to the substrate to the print.			
	1.5 Check that any sequential number will operate and count in the right direction.			
	1.6 Check that any batch coding data is set-up accurately and any barcode images can be read by a barcode scanning device.			
	1.7 Ensure the working environment is safe for production.			
	1.8 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to operate and monitor the quality of numbering, bar-coding or none-impact printing during production.	2.1 Monitor that any numbering or variable data is maintained in sequence.			
	2.2 Check that the numbering, bar-coding or other data can be read, e.g. by using a 'read' device such as a barcode scanner.			
	2.3 Run the printing machinery at the optimum speed.			
	2.4 Keep up the supply of materials and consumables throughout the run.			
	2.5 Check that quality standards and job specifications are met.			

Assessor comments/feedback

T/601/9402	Set and Run numbering, bar-coding or inline data printing equipment (continued)	Level 2	4 Credits
PR253			

3. Know how to set and monitor numbering, bar-coding or inline date printing equipment.	3.1 Explain how to start up and shut down the machinery for • Normal operation • Emergency situations			
	3.2 Explain the type of information required to ensure the equipment can be set correctly and where and when to obtain it.			
	3.3 Describe the identification and assessment of printing options and the stages in the printing process from prepress to printed product.			
	3.4 Describe the operation of equipment for the following: • The operation of numbering, bar-coding or non-impact inline printing equipment • The principles of barcode construction, including the use of 'check' digits			
	3.5 Explain the principles of impact and none-impact numbering and inline data printing.			
	3.6 Describe three problems that can occur during the set up or operation processes and possible solutions.			

Assessor comments/feedback

F/601/9418	Set and run in-line converting or enhancing equipment	Level 2	7 Credits
PR262			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run in-line converting and/or enhancing equipment on a printing machine. In-line converting or enhancing equipment is equipment which is used to apply a coating or other image-enhancing material to the substrate or any form of finishing or converting technique which is run in-line immediately before or after the printing units. It includes techniques such as cutting and creasing, rotary die-cutting, laminating, embossing, foiling and coating.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set in-line converting or enhancing equipment.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required for the job.			
	1.3 Set the in-line converting equipment to meet the job specification taking into consideration, for example: • The size, type and caliper of the substrate • Grain direction • Press running speed • That dies, formes, cylinders, blankets, etc are mounted onto or into the unit to allow effective production • Any enhancing materials (e.g. foils, coatings, laminates) • Controlled removal of waste • Production times			
	1.4 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run in-line converting or enhancing equipment.	2.1 Operate the machinery at the required production speed and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
	2.4 Record production information in accordance with Company requirements.			
	2.5 Follow the Company procedures for the removal of waste.			
	2.6 Stack or pack finished work in accordance with Company approved method.			

Assessor comments/feedback

F/601/9418 PR262	Set and run in-line converting or enhancing equipment (continued)	Level 2	7 Credits

3. Know how to set and run inline converting or enhancing equipment.	3.1 Explain how to start up and shut down the machinery for: • Normal operations • Emergency situations			
	3.2 Explain 3 things to check to ensure effective operation of the machinery.			
	3.3 Explain where to obtain information on the setting and operation of machinery.			
	3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.			
	3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor.			
	3.6 Explain the Company procedure for the disposal of 2 types of waste.			
	3.7 Explain the types of faults that can affect the quality of output, and their possible causes. Give 2 examples.			
	3.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

H/601/9413 PR260	Set and Run Die Stamping Printing Machinery	Level 2	6 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to undertake all the steps required to make a die stamping machine ready for production, to run the machine to produce commercially acceptable work, and to assist in identifying and correcting faults with the equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to prepare die stamping machinery for production.	1.1 Obtain and check the job specification.			
	1.2 Set the paper transport to run, so that: • The job stock is fed and forwarded without misses or doubles • The transport operates safely at the required running speed • Sheets are delivered squarely and form an even pile • Production times can be met			
	1.3 Fit and position the die so that: • The die is secured • The die is square			
	1.4 Set the pressure to ensure the product will meet job specification.			
	1.5 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run die stamping machine.	2.1 Run the die stamping machine at the required speed.			
	2.2 Follow the Company procedures for the removal of waste.			
	2.3 Stack work in accordance with Company guidelines.			
3. Know how to set and operate die stamping printing machinery.	3.1 Explain how to start up and shut down die stamping print machinery in: • Normal operations • Emergency situations			
	3.2 Explain the information required to set the machinery to run effectively and where to obtain it.			
	3.3 Explain how to obtain and confirm authorisation to run the job and why this is important.			
	3.4 Explain how to identify faults which: • Affect the quality of the image • Produce a shortfall in output			
	3.5 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.6 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

J/601/9419	Set and Run in-line folding equipment	Level 2	7 Credits
PR263			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set in-line folding equipment on a printing machine. It also requires knowledge of adjustments and problem solving.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set and operate in-line folding equipment.	1.1 Obtain all necessary details for the job.			
	1.2 Ensure the working environment is safe for production.			
	1.3 Set the folding equipment, ensuring that any register requirements are met.			
	1.4 Set up any gluing, stitching, sheeting or rotary cutting equipment required to produce the product to specification.			
	1.5 Ensure the output meets the job specifications and Company quality standard prior to full production.			
	1.6 Check output meets the Company's quality standard			
2. Know how to set and operate in-line folding equipment.	2.1 Explain how to start up and shut down the equipment in: • Normal operation • Emergency situation			
	2.2 Explain what information is required to set up and run the job and where to obtain it.			
	2.3 Explain how to identify the cause of problems which: • Would reduce the rate of output • Cause damage or distortion to the end product • Affect the efficient operation of equipment			
	2.4 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	2.5 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

J/601/9422 PR265	Set and run auto-packing, storage or palletising equipment	Level 2	3 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run automatic packing, storage or palletising equipment at the end of a printing machine. It is also suitable for those who work on newspapers and periodicals.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set auto-packing, storage or palletising equipment.	1.1 Obtain all details and materials required for the job.			
	1.2 Set up the equipment, taking into consideration, for example: • Quantities (as required in job specification) for batches, bundles or cartons are input • Product is wrapped without damage, distortion or waste • Bundles are square, leave the stacker centrally at the selected running speed and in the required orientation • Under wrap (where used) is applied • Strapping feeds freely without snagging • The correct number of straps is applied			
2. Be able to run auto-packing, storage or palletising equipment.	2.1 Operate the equipment at the production speed and in accordance with Company guidelines.			
	2.2 Maintain the supply of packing materials throughout the run.			
	2.3 Monitor the packed/stored/palletised product meets the Company's quality standards.			
	2.4 Forward packaged products to the designated dispatch location in accordance with Company guidelines.			
3. Know how to set and run auto-packing, storage or palletising equipment.	3.1 Describe the equipment used in the Company for autopacking, storage or pallatising.			
	3.2 Explain how to label the product once packaged and record packaging details in accordance with Company procedures.			
	3.3 Describe two problems that could occur when operating auto-packing, storage or palletising equipment and possible solutions.			
	3.4 Describe the Company's procedure for recording and reporting problems affecting auto-packing, storage or palletising equipment.			

Assessor comments/feedback

K/601/9414 PR261	Set and use reel handling equipment	Level 2	3 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to use reel handling equipment on printing machines. It includes knowledge of problems and risks with this equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set up reel handling equipment.	1.1 Obtain the required quantity and quality of materials to meet job specification.			
	1.2 Prepare reel handling equipment, so that: • Reels are selected and held safely and securely • The equipment operates efficiently			
2. Be able to operate reel handling equipment safely and efficiently.	2.1 Ensure the material is delivered and securely loaded to the machine.			
	2.2 Maintain the supply of materials throughout the run.			
	2.3 Monitor the substrate during the production process.			
3. Know how to use reel handling equipment.	3.1 Describe how to start and stop reel handling equipment in: • Normal operation • Emergency situation			
	3.2 Explain 3 faults that can occur with the reel handling equipment and where to obtain information on corrective actions.			
	3.3 Describe the risk associated with preparing and operating reel handling equipment and how to avoid them.			
	3.4 Describe three problems associated with reels, the causes and possible solutions.			
	3.5 Explain where and how to obtain the maintenance plan and operating procedures for the reel handling equipment.			

Assessor comments/feedback

R/601/9424	Prepare and load sheet-fed substrates	Level 2	3 Credits
PR266			

The aim of this unit is to provide the learner with the knowledge and skills to be able to prepare and handle substrates in sheet form in a printing environment. It includes knowledge of stacking and storage.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to maintain the condition of substrates in sheet form for printing.	1.1 Ensure that substrates for print are protected from physical damage and deterioration.			
	1.2 Store substrates for print in an environment that will minimise the effects of changes to humidity and temperature.			
	1.3 Make sure materials for print are identified in respect of their type and their intended use (e.g. For job or stock).			
	1.4 Use pallet moving equipment in accordance with manufacturer's and Company guidelines.			
2. Be able to stack and load sheet substrates.	2.1 Check that the correct substrate has been identified, in accordance with the job specification.			
	2.2 Unwrap the substrate using tools and equipment in accordance with Company guidelines.			
	2.3 Aerate the substrate to eliminate related feeding problems.			
	2.4 Stack the substrate into the machine feeder ensuring an even pile is maintained.			
	2.5 Protect printed stacks from damage or deterioration.			
3. Know how to prepare and load sheet-fed substrates.	3.1 Explain the ideal conditions and environment in which to store substrates.			
	3.2 Explain the consequences of poor storage environment.			
	3.3 Explain the Company procedure if the substrate does not meet the required standard.			
	3.4 Explain when and how to de-stack printed sheets for further processing, packing or transport.			
	3.5 Understand the consequences of handling print sheets before sufficiently dry.			

Assessor comments/feedback

L/502/8502 PR129	Output Digital Image Carriers for Print	Level 2	8 Credits

The aim of this unit is to provide the learner with the knowledge and skills to produce image carriers for printing, utilising digital system technology, e.g. Computer to Plate, (flexo, gravure, litho) Film output technology.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to impose images electronically.	1.1 Obtain all the details needed for the job			
	1.2 Select an appropriate imposition scheme by taking into account, for example: • The quantity required • The working size of the job • Paper size • Printing machine sizes and the number available • The type of printing machine to be used • Colour fall (where appropriate) • The method of finishing			
	1.3 Retrieve or create an imposition template that meets the requirements of the imposition scheme.			
	1.4 Identify and correct data, system and software problems which will affect the production of impositions.			
2. Be able to prepare images for processing.	2.1 Check that the job files are compatible with the imaging software to be used.			
	2.2 Set the required output parameters to meet the job specification, taking into account, for example: • Resolution • Screen ruling and dot type • Screen angle • Orientation • Position on the image carrier • Register or other marks • Right/wrong reading • Emulsion up/down • Separations settings			
	2.3 Make sure the required image carrier is loaded into the output device.			
	2.4 Check that the output device is calibrated and prepared for operation.			
3. Be able to produce and process image carrier.	3.1 Send the data to output device.			
	3.2 After imaging, process the image carrier as required.			
	3.3 Check that output meets the job requirements for quality and specification.			
	3.4 Store finished output in line with Company guidelines.			
	3.5 Keep records for quality assurance and administrative purposes as required by the Company.			
	3.6 Archive digital files in accordance with Company procedures.			
4. Know how to produce computer-generated image carriers.	4.1 Explain what information is required to start the work.			
	4.2 Describe 3 factors to consider when selecting an appropriate imposition scheme.			
	4.3 Describe three problems that can occur during the process of producing computer generated image carriers and suggest possible solutions.			
	4.4 Explain the Company procedures for reporting faults and delays to production.			

L/502/8502	Output Digital Image Carriers for Print (continued)	Level 2	8 Credits
PR129			

	4.5 Describe the operation of equipment for the following: • The set-up of digital equipment and software • The operation of digital imaging equipment and software.			
	4.6 State the characteristics of sensitive material in printing.			
	4.7 Explain how to deal with the digital files in relation to the following: • File conversion techniques • File compression and decompression systems • File management			

Assessor comments/feedback

A/601/9417	Set and Run Guillotines	Level 2	5 Credits
PR357			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run guillotines, including knowledge of faults and problems that can occur with guillotines.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set/programme and run guillotines.	1.1 Obtain all details of work required.			
	1.2 Identify and obtain the materials needed to meet the job specification.			
	1.3 Check that the guillotine and work area is safe and ready for production.			
	1.4 Follow manufacturer's instruction to start up the guillotine.			
	1.5 Set up the guillotine taking into consideration: • The use of an existing programme or the need to create a programmed cutting sequence • The required cut size(s) is (are) produced with minimum handling • Setting the back fence manually for each cut • Production time			
	1.6 Run the guillotine, making sure that, for example: • Cuts are clean, square and accurately positioned • Clamp pressure does not cause marking or set-off			
	1.7 Monitor the output to ensure the job specification and Company quality standards are met.			
	1.8 Record production information in accordance with Company requirements.			
	1.9 Follow the Company procedures for the removal of waste.			
2. Know how to run guillotines.	2.1 Explain the information required to carry out the work and where to obtain it.			
	2.2 Describe the principles of guillotining.			
	2.3 Explain the risks associated with operating a guillotine, and how to avoid them.			
	2.4 Explain how to start up and stop the guillotine in: • Normal operation • Emergency situations			
	2.5 Explain the Company's method for stacking of finished work from the machine.			

Assessor comments/feedback

A/601/9417	Set and Run Guillotines (continued)	Level 2	5 Credits
PR357			

3. Be able to monitor quality of guillotine cutting.	3.1 Check that the Company's quality standards are being met.			
	3.2 Record the quality assurance details following Company procedures.			
4. Know how to monitor quality of guillotine cutting.	4.1 Describe the Company's quality standards for guillotine work.			
	4.2 Describe 3 faults with a product that can occur in guillotine work, how to identify them, and how to rectify them.			
	4.3 Explain how to check that the machine is safe to operate, once quality defects have been corrected.			
	4.4 Explain the Company procedure for recording and reporting problems or faults.			

Assessor comments/feedback

H/601/9430	Set and run booklet making machinery	Level 2	5 Credits
PR356			

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and operate booklet making machinery. It includes knowledge of problems that can occur with this type of equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set booklet making machinery.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required for the job.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set the collator to meet the job specification taking into consideration, for example: • The size of the flat sheet • The flat sheets are in the required sequence • Each pile showing its different, accurately-positioned printed image • Mis-feed and double detector(s) are set • Production times			
	1.5 Set the stitch-fold unit so that: • The staples are positioned as required by the job specification • The fold is made in the required position • The settings are appropriate for the booklet thickness and size			
	1.6 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run booklet making machinery.	2.1 Operate the machinery at the required production speed and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
	2.4 Record production information in accordance with Company requirements.			
	2.5 Follow the Company procedures for the removal of waste.			
	2.6 Stack or pack finished work in accordance with Company approved methods.			
3. Know how to set and run booklet making machinery.	3.1 Explain how to start up and shut down machinery for: • Normal operation • Emergency situations			
	3.2 Explain 3 things to check to ensure effective operation of the machinery.			
	3.3 Explain where to obtain information on the setting and operation of machinery			
	3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.			
	3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor.			
	3.6 Explain the Company procedure for the disposal of 2 types of waste.			

H/601/9430	Set and run booklet making machinery (continued)	Level 2	5 Credits
PR356			

	3.7 Define the possible causes of faults which can result in, for example: • Pages missing or duplicated • Wire stitches or staples missing, broken or mis-formed • Wire stitches/staples and fold not aligned • Trimming faults such as out of square or wrong size • Marking of inside or outside pages			
	3.8 Describe 3 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

F/502/8626 PR310	Set and run in line automated stitch and trim equipment for newspaper and periodical production	Level 2	4 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to set and run in-line stitching-trimming machinery for Newspaper and Periodicals production. They will be expected to control the equipment whilst running production jobs to produce commercially acceptable work, and to understand how to identify and correct faults with the equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set stitchingtrimming machinery.	1.1 Obtain and check the job specification.			
	1.2 Ensure the required type, quantity and quality of materials are available and loaded to meet the job specification.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set up the line so that the output meets the job specification, to include: • Positioning and condition of stitch			
	1.5 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run stitchingtrimming machinery.	2.1 Run stitching-trimming machinery at the required speed and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
	2.4 Record production information in accordance with Company requirements.			
	2.5 Follow the Company procedures for the removal of waste.			
	2.6 Ensure the production is forwarded to the next stage in the production process.			

Assessor comments/feedback

F/502/8626 PR310	Set and run in line automated stitch and trim equipment for newspaper and periodical production (continued)	Level 2	4 Credits

3. Know how to set and run stitching-trimming machines.	3.1 Explain how to start up and shut down the machinery for: • Normal operation • Emergency situations			
	3.2 Explain 3 things to check to ensure effective operation of the machinery.			
	3.3 Explain where to obtain information on the setting and operation of machinery.			
	3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.			
	3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor.			
	3.6 Explain the Company procedure for the disposal of 2 types of waste.			
	3.7 Define the possible causes of faults which can result in, for example: • Stitch legs of unequal length • Stitch leg not closed • Stitch missing			
	3.8 Describe 2 situations that can be overcome by adjustments, how to make adjustments to the settings to meet the job specifications and how to ensure the machine is safe for use after adjustments have been made.			
	3.9 Describe 2 problems that can occur when operating machinery that may not be resolved by adjustment and the Company procedure for dealing with them.			

Assessor comments/feedback

Y/601/9392 PR312	Materials Handling, Transportation and Storage within the Print Working Environment	Level 2	4 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to identify, transport and store materials within the Print Working Environment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set booklet making machinery.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required for the job.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set the collator to meet the job specification taking into consideration, for example: • The size of the flat sheet • The flat sheets are in the required sequence • Each pile showing its different, accurately-positioned printed image • Mis-feed and double detector(s) are set • Production times			
	1.5 Set the stitch-fold unit so that: • The staples are positioned as required by the job specification • The fold is made in the required position • The settings are appropriate for the booklet thickness and size			
	1.6 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run booklet making machinery.	2.1 Operate the machinery at the required production speed and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
	2.4 Record production information in accordance with Company requirements.			
	2.5 Follow the Company procedures for the removal of waste.			
	2.6 Stack or pack finished work in accordance with Company approved methods.			

Assessor comments/feedback

R/601/9410 PR408	Set and run slitting and re-reeling equipment adhesive label production	Level 2	3 Credits

The aim of this unit is to provide the learner with the knowledge and skills to be able to set up and run slitting and re-reeling equipment. There is also the need to have knowledge of adjustments and problem solving when operating this type of equipment.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to set slitting and re-reeling equipment.	1.1 Obtain and check the job specification.			
	1.2 Identify and obtain the materials required for the job.			
	1.3 Ensure the working environment is safe for production.			
	1.4 Set up the slitting and re-reeling equipment, so that, for example: • Slitting is clean without any burrs • Waste is removed from final reels • Reels are produced of the required length, meterage, quantity • Reels are square to the core • Production times can be met			
	1.5 Ensure the output meets the job specifications and Company quality standard prior to full production.			
2. Be able to run slitting and re-reeling equipment.	2.1 Operate the machinery at the required production speed and in accordance with Company guidelines.			
	2.2 Keep up the supply of materials throughout the run.			
	2.3 Monitor the output to ensure the job specification and Company quality standards are met.			
	2.4 Record production information in accordance with Company requirements.			
	2.5 Follow the Company procedures for the removal of waste.			
	2.6 Stack or pack finished work in accordance with Company approved methods.			

Assessor comments/feedback

R/601/9410 PR408	Set and run slitting and re-reeling equipment adhesive label production (continued)	Level 2	3 Credits

3. Know how to set and run slitting and re-reeling equipment in adhesive label production.	3.1 Explain how to start up and shut down the machinery for • Normal operation • Emergency situations			
	3.2 Explain 3 things to check to ensure effective operation of the machinery.			
	3.3 Explain where to obtain information on the setting and operation of machinery.			
	3.4 Explain the Company procedure for obtaining authorisation to begin production and why it is important to follow the procedure.			
	3.5 Explain when and how to monitor the quality of the output, give 3 examples of things to monitor.			
	3.6 Explain the Company procedure for the disposal of 2 types of waste.			
	3.7 Define the possible causes of faults which can result in, for example: • Reels of the wrong length • Reels out of square to the core • Inaccurate slitting			

Assessor comments/feedback

M/502/8508	Prepare Stencils for Printing	Level 2	4 Credits
PR219			

The aim of this unit is to provide the learner with the knowledge and skills to be able to identify mesh and frame size, including preparing the mesh and checking the tension. Also the learner will be required to prepare the mesh material, apply and dry stencil material, position the photo-positive; also exposing, developing and drying the stencil.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to prepare the mesh.	1.1 Obtain and check the job specification.			
	1.2 Identify and select the mesh type and frame size.			
	1.3 Check the tension of the mesh.			
	1.4 Check the condition of new and used mesh is suitable for use.			
	1.5 Prepare the mesh so that it will accept the stencil.			
2. Know how to prepare the mesh.	2.1 Explain how to identify the image size.			
	2.2 Explain how to identify the machine to be used.			
	2.3 Explain how to select the frame.			
	2.4 Explain how to identify the required mesh material.			
	2.5 Describe why it is important that reclaimed mesh is free from stains and ghost images and how to confirm this.			
	2.6 Describe how to treat mesh material.			
	2.7 Explain how to check that stencil residue has been completely removed from reclaimed screens.			
	2.8 Describe the health and safety requirements when using chemicals and what personal protective equipment to use.			
	2.9 Describe the Company procedure for reporting unsuitable frames and meshes.			
3. Be able to prepare stencils for production.	3.1 Obtain and check the job specification.			
	3.2 Obtain the photo-positive and check that it is fit for use.			
	3.3 Apply the stencil material to the screen and dry it in accordance with manufacturer's and Company guidelines.			
	3.4 Position the photo-positive accurately on the screen.			
	3.5 Confirm that the exposure is correct to suit the stencil system.			
	3.6 Develop the stencil ensuring the water temperature and pressure are set in accordance with manufacturer's and Company guidelines.			
	3.7 Dry stencils checking that drying is even over the entire surface.			
	3.8 Check the stencils are free from fault.			
4. Know how to prepare stencils.	4.1 Describe the methods to use in the production of the different types of stencils.			
	4.2 Explain how to choose the type of stencil to use.			
	4.3 Give reasons for choosing a particular stencil type.			
	4.4 Describe the materials available for the production of stencils.			
	4.5 Explain what safe light conditions are used in stencil processing.			
	4.6 Explain why it is important to position the photopositive accurately and how to machine affects positioning.			

M/502/8508	Prepare Stencils for Printing (continued)	Level 2	4 Credits
PR219			

	4.7 Describe how to achieve the optimum exposure.			
	4.8 Describe the effects of under and over exposure.			
	4.9 Explain how the condition of the stencil affects the printed image.			
	4.10 Describe two common faults associated with preparing the stencils for print.			

Assessor comments/feedback

D/502/8505	Make photopolymer plates for flexographic printing	Level 2	4 Credits
PR105			

The aim of this unit is to provide the learner with the knowledge and skills to be able to carry out the production and output of photopolymer plates for flexographic printing. It includes identifying the work to be done, exposing plates, processing plates, checking the quality of output.

Learning outcome. The learner will:	Assessment criteria. The learner can:	Evidence.ref.no		
1. Be able to prepare photopolymer plates for print.	1.1 Obtain and check the job specification.			
	1.2 Ensure the required type, quantity and quality of materials are available.			
	1.3 Check that: • Negatives match with artwork • Elements match imposition • Non-image density matches the manufacturer's recommendations and their company's quality standard			
	1.4 Prepare the exposure unit in accordance with job requirements.			
	1.5 Handle and load plate material in accordance with Company procedures.			
	1.6 Position plate material so that all image elements fall accurately on the finished plate.			
	1.7 Select exposure values which produce the require plate characteristics after processing.			
	1.8 Expose the assembly in accordance with job requirements.			
	1.9 Pass the plate for processing.			
2. Be able to process photopolymer plates.	2.1 Load the processor according to specified instructions, handling materials in accordance with Company Health and Safety guidelines.			
	2.2 Set and operate processor in accordance with job requirements and safe operating procedures.			
	2.3 Trim the finished plate to the required size.			
	2.4 Check that the finished plate meets the Company's standard for: • Thickness • Relief height • Spots and blemishes			
	2.5 Keep waste to a minimum and dispose of it in accordance with Company procedures.			
	2.6 Report when the plate is ready for production.			
3. Know how to make photopolymer plates for flexographic printing.	3.1 Describe what details are needed to produce the job.			
	3.2 Describe the quality standards relating to plate production.			
	3.3 Explain the key parts of a negative film which should be checked prior to output.			
	3.4 Describe the risks which arise when handling plates and materials and operate exposure units and how to avoid them.			
	3.5 Explain the plate making methods and the function of the equipment in use in the Company.			
	3.6 Identify the suitable safe lighting conditions to be used during production.			

D/502/8505	Make photopolymer plates for flexographic printing	Level 2	4 Credits
PR105	(continued)		

	3.7 Describe the make ready procedures for the plate making equipment in use.			
	3.8 State the Company's waste disposal procedures.			
	3.9 State the Company procedures for reporting machine faults and breakdowns.			
	3.10 Give two examples of faults that can occur, what causes them and how to correct them.			
	3.11 Describe how to recognise when to correct faults themselves and when to ask for help.			

Assessor comments/feedback

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