



ETCAL Level 2 NVQ Diploma in Performing Manufacturing Operations
600/2923/7
Assessment

Diploma - Assessment Principles

Introduction

ETA qualifications are developed in conjunction with the industries and employers they service. They are designed to add value and deliver multidimensional outputs that provide impact for both learners and employers.

It is therefore important that the assessment requirements of ETA qualifications are robust whilst not containing unnecessary and over-burdensome challenges that detract from the intended outcomes and impact. These assessment principles are prepared with that in mind and are applicable to this qualification:

Level 2 NVQ Diploma in Performing Manufacturing Operations

Principles

There are four key principles to underpin assessment delivery:

1. Assessment should contribute to developing a learner's knowledge and/or skills and provide relevant and current development as the related industry requires.
2. Systems for capturing evidence of competence should be integrated and efficient. Assessment practices for both competence-based and knowledge-based aspects of qualifications should, where possible, be integrated with industry driven standards and requirements.
3. Assessment methods must be appropriate for the level and nature of the qualification units to be assessed. Methods of assessing achievement against learning outcomes and assessment principles must be accommodating and flexible, whilst remaining appropriate for both the level being assessed and industry expectations of learners at that level.
4. Evidence of knowledge and understanding must be recorded and be clearly attributable to the learner. This can be delivered using task based activity with questions and answer sessions, supported by assessor observation.

The choice and application of assessment methods must be consistent with these principles and will generally include:

- Direct Observation
- Written evidence (portfolio/workbook)
- Centre set assignment
- Centre set coursework
- Oral examination
- Professional/open discussion

Delivery Team Requirements

Tutors / Assessors

- Tutors / Assessors should have a detailed knowledge of, and be competent in, the occupational requirements of the units
- Tutors / Assessors should hold or be working towards the related professional qualifications for delivery and assessment as required
- This competence will have been acquired either in direct employment in the occupational role to which the unit relates, or in employment as a manager, supervisor or in-house trainer of employees carrying out the role
- It is unlikely that occupational competence will have been achieved in less than twelve months of employment but individuals with less experience could be considered as assessors if sufficiently occupationally competent

Internal Quality Assurers (IQAs)

- IQAs must have a thorough understanding of the structure, content and occupational requirements of the units that they are internally quality assuring. This understanding will have been acquired while either working directly within or delivering within the relevant occupational area in either an operational or a support function
- The level of understanding must be sufficient to allow the IQA to judge whether the assessor has fully assessed learners against all the principles within the unit
- It is unlikely that a person could have gained this level of understanding in less than twelve months of being employed but individuals with less experience could be considered as IQAs if they have the required level of experience, knowledge and understanding.

Technical / Expert Witness

Expert witnesses can be drawn from a wide range of people who can observe, 'measure and examine performance against the industry and qualification principles. These can include line managers and experienced individuals within a related sector-based organisation. The Technical Expert Witnesses should have proven practical experience and knowledge relating to the content of the principles being assessed.

It is unlikely that someone could become an expert in their entire job role in less than twelve months of being employed in their industry. They could, however, very quickly become an expert in the content of a single unit if this was the focus of their job role. The assessor should make a

judgement as to the level of expertise held by a potential Technical Expert Witness and, where necessary, this should be confirmed with the awarding organisation.

Assessment Materials

ETC Awards Ltd. (ETA) Assessment Materials are protected by copyright and are supplied only to Approved Centres for use solely for the purpose of the assessment of ETA learners.

Instructions for Conducting Assessment

the Approved Centre must either:

- secure approval of in-house assessment material by ETA's External Quality Assurance team prior to use
- use ETA Assessment Materials
- we recognise that reasonable adjustments may be considered at the time of assessment, please refer to the ETA Reasonable adjustments and considerations policy

All approved centres must then handle and store securely all Assessment Materials in accordance with the following:

- Assessment Material must be accessible to learners only during their programme
- The Approved Centre must not make public in any format the contents of any materials either in part or in full.
- Materials must be securely handled and under no circumstances shared with third party organisations or individuals
- The Approved Centre must seek permission from ETA through the External Quality Assurance team if they want to convert Material for alternative storage, retrieval and delivery in electronic formats.

All centre based assessment material must be agreed with ETA prior to use and will be subject to robust monitored during sampling and verification activity.



Level 2 Unit – Complying with Statutory Regulations and Organisational Safety Requirements

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to deal with statutory regulations and organisational safety requirements. It does not deal with specific safety regulations or detailed requirements, it does, however, cover the more general health and safety requirements that apply to working in an industrial environment.

The learner will be expected to comply with all relevant regulations that apply to their area of work, as well as their general responsibilities as defined in the Health and Safety at Work Act. The learner will need to be able to identify the relevant qualified first aiders and know the location of the first aid facilities. The learner will have a knowledge and understanding of the procedures to be adopted in the case of accidents involving injury and in situations where there are dangerous occurrences or hazardous malfunctions of equipment, processes or machinery. The learner will also need to be fully conversant with their organisation's procedures for fire alerts and the evacuation of premises.

The learner will also be required to identify the hazards and risks that are associated with their job. Typically, these will focus on their working environment, the tools and equipment that they use, the materials and substances that they use, any working practices that do not follow laid-down procedures, and manual lifting and carrying techniques.

Unit introduction

The learner's responsibilities will require them to comply with all relevant statutory and organisational policy and procedures for health and safety in the workplace. The learner must act in a responsible and safe manner at all times and present themselves in the workplace suitably prepared for the activities to be undertaken. The learner will be expected to report any problems with health and safety issues, to the relevant authority.

The learner's knowledge will provide a good understanding of the relevant statutory regulations and organisational requirements associated with their work and will provide an informed approach to the procedures used. The learner will need to understand their organisation's health and safety requirements and their application, in adequate depth to provide a sound basis for carrying out their activities in a safe and competent manner.

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		A/601/5013
Qualification Framework		RQF
Title		Complying with statutory regulations and organisational safety requirements
Unit Level		Level 2
Guided Learning Hours		35
Unit Credit Value		5
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Complying with statutory regulations and organisational safety requirements	1.01	Comply with their duties and obligations as defined in the Health and Safety at Work Act	
		1.02	Demonstrate their understanding of their duties and obligations to health and safety by: <ul style="list-style-type: none"> • applying in principle their duties and responsibilities as an individual under the Health and Safety at Work Act • identifying, within their organisation, appropriate sources of information and guidance on health and safety issues, such as: <ul style="list-style-type: none"> • eye protection and personal protective equipment (PPE) • COSHH regulations • Risk assessments • identifying the warning signs and labels of the main groups of hazardous or dangerous substances • complying with the appropriate statutory regulations at all times 	
		1.03	Present themselves in the workplace suitably prepared for the activities to be undertaken	
		1.04	Follow organisational accident and emergency procedures	
		1.05	Comply with emergency requirements, to include: <ul style="list-style-type: none"> • identifying the appropriate qualified first aiders and the location of first aid facilities • identifying the procedures to be followed in the event of injury to themselves or others 	

		<ul style="list-style-type: none"> • following organisational procedures in the event of fire and the evacuation of premises • identifying the procedures to be followed in the event of dangerous occurrences or hazardous malfunctions of equipment 	
1.06		Recognise and control hazards in the workplace	
1.07		Identify the hazards and risks that are associated with the following: <ul style="list-style-type: none"> • their working environment • the equipment that they use • materials and substances (where appropriate) that they use • working practices that do not follow laid down procedures 	
1.08		Use correct manual lifting and carrying techniques	
1.09		Demonstrate one of the following methods of manual lifting and carrying: <ul style="list-style-type: none"> • lifting alone • with assistance of others • with mechanical assistance 	
1.10		Apply safe working practices and procedures to include: <ul style="list-style-type: none"> • maintaining a tidy workplace, with exits and gangways free from obstruction • using equipment safely and only for the purpose intended • observing organisational safety rules, signs and hazard warnings • taking measures to protect others from any harm resulting from the work that they are carrying out 	

A large, stylized version of the 'eta' logo. The 'e' is gold, the 't' is black, and the 'a' is grey. The letters are thick and rounded, with a slight overlap between the 't' and 'a'.

Level 2 Unit – Promoting effective working relationships

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to develop and maintain internal and external working relationships.

The learner will be required to promote working relationships with a range of people such as colleagues in their own group, people in other work groups, supervisors and managers and external contacts. They will be expected to deal with any disagreements in an amicable and constructive way. They will also be expected to contribute to work activities by providing ideas and solutions and to find ways of resolving issues that cause concern and/or disagreement.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures at all times. They will be expected to report any problems that may affect working relationships that they cannot personally resolve or are outside their permitted authority to the relevant people.

The learner's knowledge will be sufficient to provide a good understanding of the sort of things that can affect good working relationships. They will be able to give an informed approach to the techniques that can be used to help maintain and develop good working relationships. They will understand how their actions will affect both internal and external working relationships.

This unit on promoting working relationships involves:

- promoting effective working relationships
- maintaining good working relationships
- solving problems with relationships
- providing and receiving feedback
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		R/601/3008
Qualification Framework		RQF
Title		Promoting effective working relationships
Unit Level		Level 2
Guided Learning Hours		30
Unit Credit Value		5
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Promoting effective working relationships	1.1	Present themselves in the workplace on time and in a way that does not cause concern to others	
		1.2	Promote and maintain working relationships with three of the following: <ul style="list-style-type: none"> • immediate supervision/line management • colleagues in same work group • colleagues in other work groups • personnel in other departments (such as those supplying inputs or receiving outputs) • managers and supervisors in other departments • external contacts (such as customers, clients) 	
		1.3	Ask for information, advice and/or help politely, without causing disruption to their own or others work	
		1.4	Offer help and information to others promptly and willingly	
		1.5	Respect the views, rights and property of others	
		1.6	Identify problems in working relationships	
		1.7	Discuss problems which may affect working relationships with the appropriate person to include two of the following: <ul style="list-style-type: none"> • work colleagues • supervisor • line manager • team leader • personnel or welfare officer 	
		1.8	Deal with problems in working relationships in ways which minimise offence and maintain the mutual respect of others to include two of the following: <ul style="list-style-type: none"> • work related issues • personal issues • communication problems 	

		1.9	Make sure that any actions that they take are within the limits of their own responsibility and authority	
		1.10	Refer requests for information and/or assistance that are outside their authority/responsibility to the appropriate person	
		1.11	Resolve disagreements and difficulties in working relationships with the appropriate person	
		1.12	Communicate in a manner which promotes understanding, goodwill and trust	
		1.13	Maintain effective communication using two of the following methods: <ul style="list-style-type: none">• in writing• electronically• orally	



Level 2 Unit – Contributing to effective team working

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to work effectively as a team member within a manufacturing environment.

The learner will be required to establish and maintain productive working relationships and deal with disagreements in an amicable and constructive way. They will also be expected to contribute to team activities by providing ideas and solutions and to find ways of resolving issues that cause concern and/or disagreement. As part of their team activities they will need to keep others informed about work plans or activities that affect them.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems that may affect the working of the team that they cannot personally resolve, or are outside their individual responsibilities, to the appropriate people. They will understand their individual role within the team and how their actions may affect the team's overall performance. They will be expected to take full responsibility for their actions within the team and for the quality and accuracy of the work that they carry out.

The learner's knowledge will be sufficient to provide a good understanding of team working and the sort of things that can affect good team working relationships. They will be able to give an informed approach to the techniques and procedures used to help maintain and develop a good team working relationships.

This unit on contributing to effective team working involves:

- developing and establishing team relationships
- maintaining good working relationships
- providing and receiving feedback
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		T/601/3101
Qualification Framework		RQF
Title		Contributing to effective team working
Unit Level		Level 2
Guided Learning Hours		30
Unit Credit Value		6
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Contributing to effective team working	1.1	Present themselves in the workplace on time and in a way that does not cause concern to other team members	
		1.2	Develop and maintain team working relationships with two of the following: <ul style="list-style-type: none"> • immediate supervision/line management • colleagues in same work group • colleagues in other work groups • those for whom they have responsibility • personnel in other departments external contacts	
		1.3	Work in accordance with the roles and responsibilities identified for their individual and team activities	
		1.4	Make sure that any actions that they take are within the limits of their own responsibility and authority	
		1.5	Ask for information, advice and/or help politely, without causing disruption to their own or other team members work	
		1.6	Offer help to others promptly and willingly in order to ensure team objectives are met	
		1.7	Contribute to team discussion/briefing sessions in a positive manner that shows respect for the views and rights of others	
		1.8	Deal with problems in team relationships in ways which minimise offence and maintain mutual respect	
		1.9	Discuss problems which may affect team relationships with the appropriate person to include two of the following: <ul style="list-style-type: none"> • other team members • team leader • immediate line manager • personnel or welfare officer 	

		1.10	Refer requests for information and/or assistance that are outside their authority/responsibility to the appropriate people	
		1.11	Work together to resolve disagreements and difficulties in team relationships	
		1.12	Communicate orally with team members by two of the following methods: <ul style="list-style-type: none">• team briefings• question and answer sessions• group discussions• problem resolution processes	
		1.13	Communicate in writing or electronically to include using one of the following methods: <ul style="list-style-type: none">• adding ideas and actions to team boards• maintaining up to date key performance/production indicators• processing information• communicating via e-mail/internal network services	
		1.14	<ul style="list-style-type: none">• Communicate in a manner which promotes understanding, goodwill and trust	

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Level 2 Unit – Transferring materials

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to transfer, move and transport materials, to their correct location within a manufacturing operations environment. This will include the use of manual lifting and handling techniques and may include the use of mechanical equipment such as sack barrows and hand operated mechanical or hydraulic lifting and moving equipment. Materials could be expected to include raw materials, components and/or products.

This will involve choosing the right equipment to use to move the materials, loading the materials correctly and following job instructions when moving the materials to their intended destination. In a manufacturing environment they could be expected to supply the production line with materials in the right place, at the right time. The learner will be expected to return any equipment used for the transfer of the materials to its correct position on completion of the activities, and leave it in a safe condition in accordance with operating procedures and taking account of all health and safety requirements. Meeting production requirements will be an important issue and their records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for moving the materials, and to report any problems with the transfer activity, or the equipment, materials or documentation used, that they cannot personally resolve, or are outside their permitted authority to the appropriate people. They will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for their actions and the work that they carry out. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and allow them to adopt an informed approach to applying the required work instructions and lifting and moving procedures. They will have an understanding of the lifting and moving techniques used, and their application, and will know about the lifting and moving equipment and materials to be moved in adequate depth to provide a sound background for carrying out the activities to the required standard.

The learner will understand the safety precautions required when working with the lifting and moving equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on transferring materials involves:

- choosing the correct equipment to transfer the materials
- loading the materials safely and correctly
- carrying out the transfer activity, and when necessary keeping the operation going
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly
- working in ways which maintain the safety of the learner and others working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		Y/601/3009
Qualification Framework		RQF
Title		Transferring materials
Unit Level		Level 2
Guided Learning Hours		53
Unit Credit Value		13
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Transferring materials	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant lifting and moving procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • lifting and moving equipment operating instructions • company standards and procedures 	
		1.3	Choose the right equipment/techniques to move the materials	
		1.4	Move materials using one or more of the following types of equipment: <ul style="list-style-type: none"> • hand operated • power operated 	
		1.5	Carry out lifting and carrying techniques to include two of the following: <ul style="list-style-type: none"> • lifting alone • lifting with assistance from others • lifting with mechanical assistance 	
		1.6	Carry out safe and correct manual lifting techniques to include three of the following: <ul style="list-style-type: none"> • lifting from ground level • lifting from an angle • lifting from waist high • lifting from below ground level • lifting from overhead 	
		1.7	Check that the weight of the materials does not exceed the safe lifting capacity of the equipment chosen	
		1.8	Check that the materials to be moved are correct, safely loaded and secure	

		1.9	Carry out checks of the materials to be moved to include all of the following: <ul style="list-style-type: none"> • the materials are as specified on the documentation • the materials are stacked safely • materials are in a suitable condition for the moving operation • the load does not exceed the safe lifting capacity of the equipment • the load is secure • there are no restrictions or obstacles preventing movement of the materials 	
		1.10	Move the materials to their correct location in accordance with instructions to include one of the following: <ul style="list-style-type: none"> • production materials • consumable materials • finished products or components • waste or scrap 	
		1.11	Identify any problems with the material transfer	
		1.12	Take appropriate action to solve problems which are within their permitted authority/responsibility	
		1.13	Make permitted adjustments to solve problems related to two of the following: <ul style="list-style-type: none"> • equipment condition • material weight/suitability for moving • securing the load in place 	
		1.14	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.15	Return any equipment they have used to its correct location on completion of the activities and leave it in a safe and reusable condition	
		1.16	Maintain any material/s movement documentation accurately and legibly	
2.	Know how to Transfer materials	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the material moving operations	
		2.2	Explain the specific safe working practices, lifting and moving procedures and regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the material moving operations	
		2.4	Explain how the specific hazards can be minimised	
		2.5	Explain what personal protective equipment needs to be used during the material movement activities and where can it be obtained	
		2.6	Explain how to obtain the necessary job instructions, lifting and moving equipment operating procedures and how to interpret them	

	2.7	Explain what procedures and documentation are required to allow the transfer of materials to take place	
	2.8	Explain what tools and equipment are used for the material movement operations undertaken and how to check that they are in a safe and usable condition	
	2.9	Explain how to choose the most suitable equipment for the moving operation being performed	
	2.10	Explain the lifting and handling procedures, and load bearing capacities of the equipment being used	
	2.11	Explain how to apply manual lifting techniques when lifting alone and with the assistance of others	
	2.12	Explain what specific moving/transfer operations are being performed	
	2.13	Explain how to identify problems with the moving/transfer operation	
	2.14	Explain what action they should take to solve problems that are within the limits of their responsibility	
	2.15	Explain why it is important to report problems to the appropriate people when they cannot solve them and/or they are not their responsibility	
	2.16	Explain why it is important to return the equipment to its correct location on completion of the activities, store it correctly, and leave it in a safe and reusable condition	
	2.17	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.18	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.19	Explain who are the appropriate people and what are their responsibilities within their working area	

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Level 2 Unit – Preparing for manufacturing operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to prepare for the manufacturing operations. This involves preparing for the manufacturing operations according to defined company procedures and taking account of all health and safety requirements.

The learner will be expected to prepare their work area in readiness for the manufacturing operations and this will include ensuring the correct layout of tools and materials, maintaining accessibility for receipt and removal of materials and ensuring the area is free from obstructions or potential hazards. They will be expected to control preparation activities, making adjustments, minimising waste and solving problems that are within their permitted authority. The equipment should be cleaned where necessary, and materials should be removed and stored correctly. They will need to check all tools and equipment are in a safe condition and are operating correctly, and that sufficient materials are available for the manufacturing operation, and that they conform to the relevant specification/s. Any incorrect documentation, equipment, tools and/or materials should be corrected within the limits of their responsibility, otherwise it should be promptly reported to the appropriate person.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the preparation activities undertaken, and to report any problems that they cannot personally resolve or are outside their permitted authority to the appropriate people. They will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for their actions and the quality of the work that they carry out. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to applying the required work instructions and preparation procedures. They will have an understanding of the work area, equipment and material preparations required, in adequate depth to provide a sound background for carrying out the activities safely and correctly. They will understand why their actions are important in the manufacturing operation.

The learner will understand the safety precautions required when carrying out the preparations, especially those involving machinery. They will be required to demonstrate safe working practices throughout and will understand the responsibility you owe to themselves and others in the workplace.

This unit on preparing for manufacturing operations involves:

- working with minimum supervision
- preparing the work area, equipment and materials
- requesting replacement tools, equipment when required
- solving problems within the limits of the learner's responsibility
- confirming the status of the work area, equipment
- checking and confirming the materials
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		L/601/3010
Qualification Framework		RQF
Title		Preparing for manufacturing operations
Unit Level		Level 2
Guided Learning Hours		42
Unit Credit Value		9
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Preparing for manufacturing operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant preparation procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • job instructions • equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant preparation procedure specifications	
		1.4	Carry out work area preparations according to procedure specification and take account of any specific safety requirements	
		1.5	Prepare and maintain the work area to include all of the following: <ul style="list-style-type: none"> • accessibility for receipt and removal of materials • freedom from obstructions and hazards • correct equipment and material layout 	
		1.6	Prepare the equipment for the manufacturing operations and check that it is in a safe and usable condition to include one of the following: <ul style="list-style-type: none"> • machinery • process plant • tools-hand held and portable • material handling arrangements • equipment specific to the operation 	
		1.7	When necessary, request replacement tools and equipment within the limits of their responsibility	

		1.8	Ensure that the materials are available, and they meet the specification for type, quantity and quality	
		1.9	Make available and check materials for manufacturing operations to include one of the following: <ul style="list-style-type: none"> • production materials • consumable materials 	
		1.10	Minimise any waste during preparation activities	
		1.11	Deal with problems in preparation in two of the following areas: <ul style="list-style-type: none"> • raw materials • documentation • tooling • equipment • work area 	
		1.12	Resolve any problems with the preparation activity within the limits of their responsibility	
		1.13	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include two of the following: <ul style="list-style-type: none"> • supervisor • team leader • maintenance personnel • quality control 	
		1.14	Maintain a safe and organised work area at all times	
2.	Know how to Prepare for manufacturing operations	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the preparation activities	
		2.2	Explain the specific safe working practices that need to be observed whilst carrying out the preparations	
		2.3	Explain the hazards associated with carrying out the preparation activities and how they can be minimised	
		2.4	Explain what personal protective equipment needs to be used during the preparation activities and where can it be obtained	
		2.5	Explain how to obtain the necessary job instructions, equipment preparation procedures and how to interpret them	
		2.6	Explain how the work area needs to be laid out, and where tools and materials need to be positioned	
		2.7	Explain what material preparations may be required and how they will be carried out	
		2.8	Explain what preparation checks need to be taken on the tools and/or equipment that they will use	
		2.9	Explain what to do if their work area, equipment and/or materials are unsuitable for the planned operations	

	2.10	Explain the arrangements for the receiving and removal of materials and products	
	2.11	Explain what checks are needed to make sure materials meet the required specification	
	2.12	Explain how to check that preparation is complete and correct	
	2.13	Explain what methods can be used to minimise waste during preparation activities	
	2.14	Explain the potential problems with carrying out preparation activities and how they can be avoided	
	2.15	Explain what problems can occur in preparation activities	
	2.16	Explain how to identify problems within preparation activities	
	2.17	Explain what actions they can take within the limits of their responsibility to solve the problems	
	2.18	Explain who to report unsolvable problems to, or problems that are not within the limits of their responsibility	
	2.19	Explain what documentation may need to be completed, and why it is important to complete it accurately	
	2.20	Explain what their personal responsibilities are with regard to health, safety and environmental issues	
	2.21	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Concluding manufacturing operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to conclude manufacturing operations.

This involves stopping the manufacturing operations according to defined company procedures and taking account of all health and safety requirements. The learner will be expected to control the shutdown of all operating systems and equipment in accordance with specified shutdown procedures, making any adjustments within their permitted authority and minimising any waste. The equipment should be cleaned where necessary, and materials should be removed and stored correctly. The work area must also be left in a clean and tidy manner. Any incorrect documentation, equipment, tools and/or materials should be corrected within the limits of their responsibility, otherwise it should be promptly reported to the appropriate person.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems that they cannot personally resolve or are outside their permitted authority to the appropriate people. They will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for their actions and the quality of the work that they carry out. They will be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and adopt an informed approach to applying the appropriate shutdown procedures/methods of completing the manufacturing operations. They will need to understand why their actions are important in the manufacturing operation.

The learner will understand the safety precautions required when carrying out the shutdown activities, especially those for isolating power supplies and leaving mechanised equipment in a safe condition. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on concluding manufacturing operations involves:

- working with minimum supervision
- stopping manufacturing operations according to defined company procedures
- cleaning tools and equipment when required
- storing materials when required
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		Y/601/3012
Qualification Framework		RQF
Title		Concluding manufacturing operations
Unit Level		Level 2
Guided Learning Hours		42
Unit Credit Value		9
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Concluding manufacturing operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow relevant shutdown procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • company procedures • job instructions • equipment shutdown instructions 	
		1.3	Obtain and follow the correct job instructions and any relevant completion/shutdown procedure instructions	
		1.4	Stop the operations in accordance with job instructions and specified completion/shutdown procedures, and take account of any specific safety procedures	
		1.5	Close down equipment used in the manufacturing operations to include one of the following: <ul style="list-style-type: none"> • machinery • process plant • tools (hand held and portable) • material handling arrangements • equipment specific to the operation 	
		1.6	Make sure any related equipment is shut down to a safe condition in accordance with completion/shutdown procedures	
		1.7	Ensure equipment is clean for further use	
		1.8	Remove and store materials in a correct and safe manner	
		1.9	Deal appropriately with materials at completion of the manufacturing operations to include the following: <ul style="list-style-type: none"> • finished products / components 	

			and one other type of material from the following: <ul style="list-style-type: none"> • production materials • surplus consumable materials • waste or scrap materials 	
		1.10	Minimise any waste during completion/shutdown activities	
		1.11	Resolve any problems with the completion/shutdown activity within the limits of their responsibility	
		1.12	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include two of the following: <ul style="list-style-type: none"> • supervisor • team leader • maintenance personnel • quality control 	
		1.13	Maintain a safe and organised work area at all times	
		1.14	Report on status of completion/shutdown of manufacturing operations	
		1.15	Use the correct reporting procedure on completion of manufacturing operations for one of the following: <ul style="list-style-type: none"> • output • downtime • quality • maintenance requirements • scrap • work in progress 	
		1.16	Confirm completion/shutdown is correct and complete according to defined procedures/instructions	
2.	Know how to Conclude manufacturing operations	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the activities	
		2.2	Explain the specific safe working practices that need to be observed whilst carrying out the completion/shut down activities	
		2.3	Explain the hazards associated with carrying out the completion/shutdown activities and how they can be minimised	
		2.4	Explain what personal protective equipment needs to be used during the completion/shutdown and cleaning activities and where can it be obtained	
		2.5	Explain what actions need to be taken in case of emergencies when shutting down machines or fully automated manufacturing operations	
		2.6	Explain how to obtain the necessary job instructions, equipment shutdown procedures and how to interpret them	
		2.7	Explain when in the manufacturing operation is it safe to shut down the equipment	

	2.8	Explain what completion checks need to be made	
	2.9	Explain the procedures for cleaning the equipment	
	2.10	Explain the procedures for storing and removing materials and waste	
	2.11	Explain what methods can be used to minimise waste during completion activities	
	2.12	Explain the potential problems with carrying out the completion activities and how they can be avoided	
	2.13	Explain what problems can occur in completion/shutdown activities	
	2.14	Explain how to identify problems within completion/shutdown activities	
	2.15	Explain what actions they can take within the limits of their responsibility to solve the problems	
	2.16	Explain who to report unsolvable problems to, or problems that are not within the limits of their responsibility	
	2.17	Explain what documentation needs to be completed and why it is important to complete it accurately and legibly	
	2.18	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.19	Explain who are the other appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Ensuring effective handover of manufacturing operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to ensure the effective handover of continuous manufacturing operations to other people.

This involves preparing for the handover according to defined company procedures and taking account of all health and safety requirements. The learner will be expected to check all operating systems, and that equipment conforms to the relevant handover instructions. They will be expected to monitor and control the handover operation, minimising waste and making adjustments within the limits of their permitted authority. The equipment should be cleaned where necessary, and materials and equipment stored correctly. The work area must also be left in a clean and tidy manner.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the handover activities undertaken, and to report any problems that they cannot personally resolve or are outside their permitted authority to the appropriate people. They will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and the quality of the work that they carry out. They will be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and adopt an informed approach to applying the appropriate handover procedures. They will have an understanding of the hand over operation used, and its application, in an adequate depth to provide a sound background for carrying out the handover operation, making allowable adjustments when required, to ensure that the handover operation is completed satisfactorily. They will need to understand why their actions are important in the manufacturing operation.

The learner will understand the safety precautions required when carrying out the handover activities, especially those involving mechanised equipment or continuous process operations. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on handing over manufacturing operations involves:

- preparation of area, equipment and materials for handover
- cleaning tools and equipment when required
- confirming the status of the area, equipment and materials for handover
- handover of manufacturing operations
- monitoring and controlling the handover operation
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		H/601/3014
Qualification Framework		RQF
Title		Ensuring effective handover of manufacturing operations
Unit Level		Level 2
Guided Learning Hours		42
Unit Credit Value		9
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Ensuring effective handover of manufacturing operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow relevant handover procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • company procedures • job instructions • equipment handover instructions 	
		1.3	Obtain and follow the correct job instructions and any relevant handover instructions	
		1.4	Carry out pre-handover checks, and prepare the manufacturing operation for handover	
		1.5	Prepare and handover equipment used in the manufacturing operations to include one of the following: <ul style="list-style-type: none"> • machinery • process plant • tools (hand held and portable) • material handling arrangements • equipment specific to the operation 	
		1.6	Maintain the work area in readiness for handover of the manufacturing operations to include all of the following: <ul style="list-style-type: none"> • cleanliness of equipment and tooling • accessibility for receipt and removal of materials • freedom from obstructions and hazards • equipment and material correctly in place 	
		1.7	Make sure that they take account of any specific safety requirements involved in the handover	

		1.8	Perform the handover operation	
		1.9	Monitor and control the handover operation, and identify any faults, variation, problems that occur	
		1.10	Make any necessary adjustments within their permitted authority	
		1.11	Make permitted adjustments to solve handover problems to include two of the following: <ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	
		1.12	Report any faults, variations or problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.13	Minimise any waste during the handover operation	
		1.14	Confirm handover as correct and complete	
		1.15	Complete any necessary documentation accurately and legibly	
2.	Know how to ensure effective handover of manufacturing operations	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the handover activities	
		2.2	Explain the specific safe working practices that need to be observed whilst carrying out the handover activities	
		2.3	Explain the hazards associated with carrying out the handover activities and how they can be minimised	
		2.4	Explain what personal protective equipment needs to be used during the preparation activities for handover and where can it be obtained	
		2.5	Explain what actions need to be taken in case of emergencies when handing over machines or fully automated manufacturing processes/operations	
		2.6	Explain how to obtain the necessary job instructions, handover procedures, and how to interpret them	
		2.7	Explain when in the manufacturing operation is it safe to carry out the handover procedure	
		2.8	Explain what pre handover checks need to be made	
		2.9	Explain what the layout of the work area should be for the handover operation	
		2.10	Explain the procedures for cleaning the equipment, and storing and removing materials and waste	
		2.11	Explain how to carry out the handover operation safely and correctly	
		2.12	Explain what faults, problems or variations can occur in the handover operation	

	2.13	Explain how to identify faults, problems or variations in the handover operation	
	2.14	Explain what adjustments they are allowed to make during the handover operation	
	2.15	Explain why it is important to report faults, variations or problems that are outside their permitted authority or they cannot solve	
	2.16	Explain what documentation may need to be completed on handover, and why it is important to complete it accurately and legibly	
	2.17	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.18	Explain who are the other appropriate people and what are their responsibilities within their working area	

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Level 2 Unit – Receiving and checking incoming materials

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to receive and check incoming materials into the workplace.

This involves preparing for and receiving the materials according to defined company procedures and taking account of all health and safety requirements. The learner will be expected to prepare their work area in readiness for the receipt of the materials and this will include ensuring accessibility for receipt and removal of the materials and ensuring the area is free from obstructions or potential hazards. They will need to check that the materials conform to the relevant specification/s, and that sufficient materials are available for the manufacturing operations being performed. Any incorrect documentation, equipment, tools and/or materials should be corrected within the limits of their responsibility, otherwise it should be promptly reported to the appropriate person.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the receipt of the materials, and to report any problems with the materials that they cannot personally resolve or are outside their permitted authority to the relevant people. They will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for their actions and the quality of the work that they carry out. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to applying the required work instructions and preparation procedures. They will have an understanding of the work area, and material preparations required, in adequate depth to provide a sound background for carrying out the activities safely and correctly. They will understand why their actions are important in the manufacturing operation.

The learner will understand the safety precautions required when carrying out the receipt of the incoming materials, especially those involving the use of lifting or moving equipment.

They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on receiving and checking incoming materials involves:

- working with minimum supervision
- preparation of work area for receipt of materials
- receiving materials
- confirming the status of the materials
- resolving problem within the limits of the learner's responsibility
- completing any necessary documentation accurately and legibly
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		T/601/3017
Qualification Framework		RQF
Title		Receiving and checking incoming materials
Unit Level		Level 2
Guided Learning Hours		42
Unit Credit Value		9
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Receiving and checking incoming materials	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow relevant procedures and safety requirements for the receipt of the materials to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • company procedures • job instructions 	
		1.3	Obtain and follow the correct job instructions and any relevant material specifications	
		1.4	Carry out work area preparations for the receipt of the incoming materials according to specified procedures	
		1.5	Prepare and maintain the work area to include all of the following: <ul style="list-style-type: none"> • accessibility for receipt and removal of materials • freedom from obstructions and hazards • correct material layout 	
		1.6	Make sure that they take account of any additional safety requirements specific to incoming materials	
		1.7	Carry out receipt of the incoming materials according to specified operating procedures	
		1.8	Receive materials for manufacturing operations to include one of the following: <ul style="list-style-type: none"> • production materials • consumable materials • hazardous materials 	
		1.9	Confirm that the materials meet the specification for type, quantity and quality	
		1.10	Resolve any problems that are within the limits of their responsibility in two of the following areas: <ul style="list-style-type: none"> • material quantity 	

		<ul style="list-style-type: none"> • material quality • delivery time of material • work area • location of material 	
		1.11 Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor/manager • team leader • quality control 	
		1.12 Maintain a safe and organised work area at all times	
		1.13 Confirm materials are correct and complete	
		1.14 Complete documentation accurately and legibly	
2.	Know how to receive and check incoming materials	2.1 Describe the relevant health and safety requirements of the work area in which they are carrying out the receipt of the materials	
		2.2 Explain the specific safe working practices that need to be observed whilst carrying out the receipt of materials	
		2.3 Explain the hazards associated with carrying out the receipt of the materials and how they can be minimised	
		2.4 Explain what personal protective equipment needs to be used and where can it be obtained	
		2.5 Explain how to obtain the necessary job instructions, material specifications and preparation procedures and how to interpret them	
		2.6 Explain how the work area needs to be laid out, in readiness for the receipt of the materials	
		2.7 Explain what the arrangements are for receiving the materials	
		2.8 Explain what checks are needed to make sure materials meet the required specification	
		2.9 Explain what methods can be used to minimise waste during receipt of materials	
		2.10 Explain the potential problems with carrying out the receipt of materials and how they can be avoided	
		2.11 Explain what problems can occur in receiving materials	
		2.12 Explain how to identify problems with receiving materials	
		2.13 Explain what to do if the materials are not to the required specification or are damaged or unsuitable for the planned production operations	
		2.14 Explain what actions they can take within the limits of their responsibility to solve problems	
		2.15 Explain who to report unsolvable problems to, or problems that are not within the limits of their responsibility	
		2.16 Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
		2.17 Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Producing shaped products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to produce shaped products by material removal to modify the shape of a component or generate a component from stock material.

This will involve producing shaped products according to defined operating procedures. The learner will be expected to monitor and control the shaping operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the shaping activities undertaken, and to report any problems with the shaping activities that they cannot personally resolve or are outside their permitted authority to the appropriate people.

They will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and shaping procedures. They will have an understanding of the shaping process used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the shaping tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

NB This unit is NOT applicable to wood machining operations, to which other industry specific standards and strict regulations apply.

This unit on producing shaped products involves:

- working with minimum supervision
- using the correct tools, equipment and materials
- performing the shaping operation
- monitoring and controlling the shaping operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		R/601/3025
Qualification Framework		RQF
Title		Producing shaped products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing shaped products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant shaping procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • shaping equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant shaping procedure and quality specifications	
		1.4	Use the correct shaping tools, equipment, materials and work holding methods for the shaping operations being performed	
		1.5	Perform shaping operations using one of the following methods: <ul style="list-style-type: none"> • hand shaping operations • manually operated machine shaping operations • fully automated machine shaping operations • combined shaping operations 	
		1.6	Perform the shaping operation according to instructions and safe operating procedures	
		1.7	Monitor and control the shaping operation and identify any faults, variations or problems that occur	
		1.8	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> • quality • accuracy 	

		<ul style="list-style-type: none"> • material utilisation • operational safety • manufacturing changes • productivity 	
		1.9	Make any necessary adjustments within their permitted authority
		1.10	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control
		1.11	Minimise any waste during the shaping operation
		1.12	Produce shaped products which comply with the shaping specification and quality requirements
		1.13	Carry out checks of the shaped products to include the following: <ul style="list-style-type: none"> • completeness of shaping operations and two other checks from the following: <ul style="list-style-type: none"> • dimensional accuracy of shaped product • quality of finish • freedom from damage or false tool cuts
		1.14	Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality
		1.15	Deal appropriately with finished components and complete any necessary documentation accurately and legibly
2.	Know how to produce shaped products	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the shaping operations
		2.2	Explain the specific safe working practices, shaping procedures and environmental regulations that need to be observed
		2.3	Explain the hazards associated with carrying out the shaping operations and how they can be minimised
		2.4	Explain what actions need to be taken in case of emergencies
		2.5	Explain what personal protective equipment needs to be used during the shaping activities and where can it be obtained
		2.6	Explain how to obtain the necessary job instructions, operating procedures and shaping specifications that are used, and how to interpret them
		2.7	Explain what tools and equipment are used for the shaping operations undertaken and how to check that they are in a safe and usable condition
		2.8	Explain how to hold the materials securely without causing damage or distortion

	2.9	Explain how to operate monitor and control the shaping equipment to achieve the required specification	
	2.10	Explain the specific shaping operations to be performed	
	2.11	Explain why it is important to follow the specified shaping sequence and procedure at all times	
	2.12	Explain what methods can be used to minimise waste during shaping operations	
	2.13	Explain what faults, problems or variations can occur in the shaping operation	
	2.14	Explain how to identify faults, problems or variations in the shaping operation	
	2.15	Explain what allowable adjustments they can make to achieve specification in the shaping operation	
	2.16	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.17	Explain how to check the quality of the shaped components, against the required quality standards and what tools and equipment are used	
	2.18	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.19	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.20	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Producing products by assembly operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out product assembly operations that bring together a number of components in a logical sequence to construct an assembly or sub-assembly.

This will involve carrying out the assembly operation according to defined operating procedures. The learner will be expected to monitor and control the assembly operation, making adjustments within their permitted authority, minimising any waste and ensuring that the completed assemblies are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the assembly activities undertaken, and to report any problems with the assembly activities they cannot personally resolve or are outside their permitted authority to the appropriate people. They will be expected to work to instructions, with a minimum of supervision, taking personal responsibility for their actions and the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and assembly procedures. They will have an understanding of the assembly techniques used, and their application, and will know about the equipment, components and consumables in adequate depth to provide a sound background for carrying out the activities to the required specification.

The learner will understand the safety precautions required when working with the assembly tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing products by assembly operations involves:

- working with minimum supervision
- using the correct, tools, equipment and materials for the assembly operation
- performing the product assembly in the correct sequence
- monitoring and controlling the assembly operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		A/601/3035
Qualification Framework		RQF
Title		Producing products by assembly operations
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing products by assembly operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant assembly procedures and safety requirements according to all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • assembly instructions • assembly equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant assembly procedure and quality specifications	
		1.4	Check that they have all the necessary components and that they are undamaged and in a usable condition	
		1.5	Position and align the components correctly	
		1.6	Secure the components in position using the specified fastening device/method	
		1.7	Use appropriate tools, equipment and materials during the assembly operations	
		1.8	Carry out assembly operations using one of the following methods: <ul style="list-style-type: none"> • hand assembly operations • manually operated machine assembly operations • fully automated assembly operations • combined assembly operations 	
		1.9	Monitor and control the assembly operation and identify any faults/variations/problems that occur	

		1.10	<p>Make permitted adjustments to solve production faults, variations or problems related to two of the following:</p> <ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • productivity • manufacturing changes 	
		1.11	<p>Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following:</p> <ul style="list-style-type: none"> • supervisor • quality control • team leader 	
		1.12	<p>Produce assembled product/s which comply with the specification and quality requirements</p>	
		1.13	<p>Carry out checks of the assembly to include the following:</p> <ul style="list-style-type: none"> • completeness of the assembly <p>and three other checks from the following:</p> <ul style="list-style-type: none"> • positional accuracy of components • correct orientation of components • component alignment • component security • freedom from damage or foreign objects • volume/quantity 	
2.	Know how to produce products by assembly operations	1.15	<p>Deal appropriately with finished assemblies and complete any necessary documentation accurately and legibly</p>	
		2.1	<p>Describe the relevant health and safety requirements of the work area in which they are carrying out the assembly operations</p>	
		2.2	<p>Explain the specific safe working practices, assembly procedures and environmental regulations that need to be observed</p>	
		2.3	<p>Explain the hazards associated with carrying out the assembly operations and how they can be minimised</p>	
		2.4	<p>Explain what actions need to be taken in case of emergencies</p>	
		2.5	<p>Explain what personal protective equipment needs to be used during the assembly activities and where can it be obtained</p>	

	2.6	Explain how to obtain the necessary job instructions, operating procedures and assembly specifications that are used, and how to interpret them	
	2.7	Explain what tools and equipment are used for the assembly operation and how to check that they are in a safe and usable condition	
	2.8	Explain the specific assembly operations to be performed	
	2.9	Explain why it is important to follow the specified assembly sequence and procedure at all times	
	2.10	Explain what methods are used to align and position the components prior to fixing them into position	
	2.11	Explain what methods are used to fix the components securely in position	
	2.12	Explain what methods can be used to minimise waste during the assembly operation	
	2.13	Explain how to monitor the quality of the assembly and identify any variations from the specification	
	2.14	Explain how to check the quality of the assembly, against the required quality standards and what tools and equipment are used	
	2.15	Explain what fault, problems or variations can occur in the assembly operation	
	2.16	Explain how to identify the faults, problems or variations in the assembly operation	
	2.17	Explain what allowable adjustments they can make to achieve the required outcome	
	2.18	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.19	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.20	Explain who are the appropriate people and what are their responsibilities within their working area	

A large, stylized outline of the word 'eta' is centered on the page. The 'e' is outlined in a dark olive green, the 't' is outlined in black, and the 'a' is outlined in a light grey. The letters are connected and have a rounded, friendly appearance.

Level 2 Unit – Producing joined products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out joining operations by bringing together two or more materials which leads to a permanent physical change in the properties of the materials. This may be by the use of one of the following 'joining' mediums': soldering, bonding, gluing, welding or brazing.

This will involve producing joined products according to defined operating procedures. The learner will be expected to monitor and control the joining operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the joining activities undertaken, and to report any problems with the joining activities they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and joining procedures. They will have an understanding of the joining process used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the joining tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing joined products involves:

- working with minimum supervision
- performing the joining operation, using the correct joining 'medium'
- monitoring and controlling the joining operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		R/601/3039
Qualification Framework		RQF
Title		Producing joined products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		17
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing joined products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant joining procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> health and safety regulations safe working practices job instructions joining equipment / tool operating instructions company standards and procedures 	
		1.3	Prepare the surface to be joined, making sure that it is free of any defects which may affect the joining operation	
		1.4	<ul style="list-style-type: none"> Use the correct joining tools, equipment and techniques to correctly position and align the components to be joined 	
		1.5	Perform joining operations using one of the following methods: <ul style="list-style-type: none"> hand joining operations manually operated machine joining operations fully automated machine joining operations combined joining operations 	
		1.6	Perform the joining operation according to instructions and safe operating procedures	
		1.7	Monitor and control the joining operation and identify any faults, variations or problems that occur	
		1.8	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> quality 	

		<ul style="list-style-type: none"> • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	
		1.9 Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.10 Minimise any waste during the joining operation	
		1.11 Produce joined products which comply with the joining specification and quality requirements	
		1.12 Carry out checks of the joined products to include all of the following: <ul style="list-style-type: none"> • completeness of joining operations • positional accuracy of product • joint quality and appearance • security of joint • freedom from excessive joining medium 	
		1.13 Work to achieve their production targets both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.14 Deal appropriately with finished components and complete any necessary documentation accurately and legibly	
2.	Know how to produce joined products	2.1 Describe the relevant health and safety requirements of the work area in which they are carrying out the joining operations	
		2.2 Explain the specific safe working practices, joining procedures and environmental regulations that need to be observed	
		2.3 Explain the hazards associated with carrying out the joining operations and how they can be minimised	
		2.4 Explain what actions need to be taken in case of emergencies	
		2.5 Explain what personal protective equipment needs to be used during the joining activities and where can it be obtained	
		2.6 Explain how to obtain the necessary job instructions, operating procedures and joining specifications that are used, and how to interpret them	
		2.7 Explain what tools and equipment are used for the joining operations undertaken and how to check that they are in a safe and usable condition	

	2.8	Explain the methods of surface preparation that are used in the joining operation and why they are necessary	
	2.9	Explain how to correctly position and align the components to be joined	
	2.10	Explain the specific joining operations to be performed	
	2.11	Explain how to perform the joining process to achieve the required specification	
	2.12	Explain why it is important to follow the specified joining sequence and procedure at all times	
	2.13	Explain what methods can be used to minimise waste during joining operations	
	2.14	Explain what faults, problems or variations can occur in the joining operation	
	2.15	Explain how to identify faults, problems or variations in the joining operation	
	2.16	Explain what allowable adjustments they can make to achieve specification in the joining operation	
	2.17	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.18	Explain how to monitor and check the quality of the joined components, against the required quality standards and what tools and equipment are used	
	2.19	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.20	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.21	Explain who are the appropriate people and what are their responsibilities within their working area	

A large, stylized graphic of the word 'eta' is centered on the page. The 'e' is rendered in a dark olive green outline. The 't' is a black outline, and the 'a' is a light grey outline. The letters are connected and have a rounded, friendly appearance.

Level 2 Unit – Producing products by processing

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out processing operations on materials or products which involves using a pre-defined sequence of events that changes the physical appearance or properties of the material or product. Examples of this could be heat treatment, photo process operations, distillation, mixing of materials etc.

This will involve producing products by processing according to defined operating procedures. The learner will be expected to monitor and control the processing operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the processing activities undertaken, and to report any problems with the processing activities that they cannot personally resolve or are outside their permitted authority the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and processing procedures. They will have an understanding of the processing used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the processing tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing products by processing involves:

- working with minimum supervision
- performing the processing operation
- monitoring and controlling the processing operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		F/601/3067
Qualification Framework		RQF
Title		Producing products by processing
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		17
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing products by processing	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant processing procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • processing equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant processing procedure and quality specifications	
		1.4	Follow the pre-defined sequence of events at all times	
		1.5	Use the correct tools, equipment and materials to further the process	
		1.6	Perform processing operations using one of the following methods: <ul style="list-style-type: none"> • hand processing operations • manually operated machine processing operations • fully automated machine processing operations • combined processing operations 	
		1.7	Perform the processing operation according to instructions and safe operating procedures	
		1.8	Monitor and control the processing operation and identify any faults, variations or problems that occur	
		1.9	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> • quality • accuracy 	

		<ul style="list-style-type: none"> • material utilisation • operational safety • manufacturing changes • productivity 	
		1.10 Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.11 Minimise any waste during the processing operation	
		1.12 Produce processed products which comply with the processing specification and quality requirements	
		1.13 Carry out checks of the processed products to include the following: <ul style="list-style-type: none"> • completeness of processing operations and two other checks from the following: <ul style="list-style-type: none"> • appearance of product • freedom from contamination • quantity • volume 	
		1.14 Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.15 Complete any necessary documentation accurately and legibly	
2.	Know how to Produce products by processing	2.1 Describe the relevant health and safety requirements of the work area in which they are carrying out the processing operations	
		2.2 Explain the specific safe working practices, processing procedures and environmental regulations that need to be observed	
		2.3 Explain the hazards associated with carrying out the processing operations and how they can be minimised	
		2.4 Explain what actions need to be taken in case of emergencies	
		2.5 Explain what personal protective equipment needs to be used during the processing activities and where can it be obtained	
		2.6 Explain how to obtain the necessary job instructions, operating procedures and processing specifications that are used, and how to interpret them	
		2.7 Explain what tools and equipment are used for the processing operations undertaken and how to check that they are in a safe and usable condition	
		2.8 Explain why it is important to follow the pre-determined sequence of events in the processing operation	

	2.9	Explain the consequences of not following the pre-determined sequence of events in the processing operation	
	2.10	Explain the specific processing operations to be performed	
	2.11	Explain how to perform the processing operation to achieve the required specification	
	2.12	Explain what methods can be used to minimise waste during processing operations	
	2.13	Explain what faults, problems or variations can occur in the processing operation	
	2.14	Explain how to identify faults, problems or variations in the processing operation	
	2.15	Explain what allowable adjustments they can make to achieve specification in the processing operation	
	2.16	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.17	Explain how to monitor and check the quality of the processed products, against the required quality standards	
	2.18	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.19	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.20	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Producing formed products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out forming operations by applying physical pressure to change the shape of the material or component. This could be by pressing, bending, vacuum forming, stretching, extrusion, shrinking etc.

This will involve producing formed products according to defined operating procedures. The learner will be expected to monitor and control the forming operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the forming activities undertaken, and to report any problems with the forming activities that they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and forming procedures. They will have an understanding of the forming operation used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the forming tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing formed products involves:

- working with minimum supervision
- using the correct tools, equipment and materials for the forming operation
- performing the forming operation
- monitoring and controlling the forming operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		T/601/3079
Qualification Framework		RQF
Title		Producing formed products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing formed products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant forming procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • forming equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant forming procedure and quality specifications	
		1.4	Use the correct forming tools, equipment, materials and work holding methods for the forming operations being performed	
		1.5	Perform forming operations using one of the following methods: <ul style="list-style-type: none"> • hand forming operations • manually operated machine forming operations • fully automated machine forming operations • combined forming operations 	
		1.6	Perform the forming operation according to instructions and safe operating procedures	
		1.7	Monitor and control the forming operation and identify any faults, variations or problems that occur	
		1.8	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> • quality • accuracy 	

		<ul style="list-style-type: none"> • material utilisation • operational safety • manufacturing changes • productivity 	
		1.9 Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.10 Minimise any waste during the forming operation	
		1.11 Produce formed products which comply with the forming specification and quality requirements	
		1.12 Carry out checks of the formed products to include all of the following: <ul style="list-style-type: none"> • completeness of forming operations • shape/profile of formed product • quality of finish and appearance • freedom from deformity or ripples • freedom from damage or tool marks 	
		1.13 Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.14 Deal appropriately with finished components and complete any necessary documentation accurately and legibly	
2.	Know how to Produce formed products	2.1 Describe the relevant health and safety requirements of the work area in which they are carrying out the forming operations	
		2.2 Explain the specific safe working practices, forming procedures and environmental regulations that need to be observed	
		2.3 Explain the hazards associated with carrying out the forming operations and how they can be minimised	
		2.4 Explain what actions need to be taken in case of emergencies	
		2.5 Explain what personal protective equipment needs to be used during the forming activities and where can it be obtained	
		2.6 Explain how to obtain the necessary job instructions, operating procedures and forming specifications that are used, and how to interpret them	
		2.7 Explain what tools and equipment are used for the forming operations undertaken and how to check that they are in a safe and usable condition	
		2.8 Explain how to hold the materials securely without causing damage or distortion	

	2.9	Explain how to operate, monitor and control the forming equipment to achieve the required specification	
	2.10	Explain the specific forming operations to be performed	
	2.11	Explain why it is important to follow the specified forming sequence and procedure at all times	
	2.12	Explain what methods can be used to minimise waste during forming operations	
	2.13	Explain what faults, problems or variations can occur in the forming operation	
	2.14	Explain how to identify faults, problems or variations in the forming operation	
	2.15	Explain what allowable adjustments they can make to achieve specification in the forming operation	
	2.16	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.17	Explain how to check the quality of the formed components, against the required quality standards and what tools and equipment are used	
	2.18	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.19	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.20	Explain who are the appropriate people and what are their responsibilities within their working area	

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Level 2 Unit – Finishing products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out finishing operations on materials or products that is used to either; enhance its appearance, increase its protection or improve its safety properties. Examples of this could be applying decorative coatings, applying protective coatings, removing sharp edges etc.

This will involve producing finished products according to defined operating procedures. The learner will be expected to monitor and control the finishing operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the finishing activities undertaken, and to report any problems with the finishing activities that they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and finishing procedures. They will have an understanding of the finishing operation used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the finishing tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on finishing products involves:

- working with minimum supervision
- using the correct tools, equipment and materials for the finishing operation
- performing the finishing operation
- monitoring and controlling the finishing operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly
- Working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		M/601/3081
Qualification Framework		RQF
Title		Finishing products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		17
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Finishing products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant finishing procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • finishing equipment/tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant finishing procedure and quality specifications	
		1.4	Use the correct finishing tools, equipment, materials for the finishing operations being performed	
		1.5	Perform finishing operations using one of the following methods: <ul style="list-style-type: none"> • hand finishing operations • manually operated machine finishing operations • fully automated machine finishing operations • combined finishing operations 	
		1.6	Perform the finishing operation according to instructions and safe operating procedures	
		1.7	Follow the correct sequence of events in the finishing operation	
		1.8	Monitor and control the finishing operation and identify any faults, variations or problems that occur	
		1.9	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> • quality 	

		<ul style="list-style-type: none"> • accuracy • material utilisation • operational safety • manufacturing changes • productivity 		
		1.10	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.11	Minimise any waste during the finishing operation	
		1.12	Produce finished products which comply with the finishing specification and quality requirements	
		1.13	Carry out checks of the finished products to include all of the following: <ul style="list-style-type: none"> • completeness of finishing operations • quality of finish and appearance • freedom from damage • freedom from deformity • freedom from contamination 	
		1.14	Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.15	Deal appropriately with finished components and complete any necessary documentation accurately and legibly	
2.	Know how to finish products	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the finishing operations	
		2.2	Explain the specific safe working practices, finishing procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the finishing operations and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies	
		2.5	Explain what personal protective equipment needs to be used during the finishing activities and where can it be obtained	
		2.6	Explain how to obtain the necessary job instructions, operating procedures and finishing specifications that are used, and how to interpret them	
		2.7	Explain what tools and equipment are used for the finishing operations undertaken and how to check that they are in a safe and usable condition	

	2.8	Explain how to operate, monitor and control the finishing equipment to achieve the required specification	
	2.9	Explain the specific finishing operations to be performed	
	2.10	Explain why it is important to follow the specified finishing sequence and procedure at all times	
	2.11	Explain what methods can be used to minimise waste during finishing operations	
	2.12	Explain what faults, problems or variations can occur in the finishing operation	
	2.13	Explain how to identify faults, problems or variations in the finishing operation	
	2.14	Explain what allowable adjustments they can make to achieve specification in the finishing operation	
	2.15	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve	
	2.16	Explain how to check the quality of the finished components, against the required quality standards and what tools and equipment are used	
	2.17	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.18	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.19	Explain who are the appropriate people and what are their responsibilities within their working area	

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Level 2 Unit – Producing moulded products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out moulding operations that involves using a pattern or mould to change the shape of the material. This will include injection moulding, casting, laying up using resin and fibre materials etc.

This will involve producing moulded products according to defined operating procedures. The learner will be expected to monitor and control the moulding operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed components are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the moulding activities undertaken, and to report any problems with the moulding activities that they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and moulding procedures. They will have an understanding of the moulding operation used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the moulding tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing moulded products involves:

- working with minimum supervision
- using the correct tools, equipment and materials for the moulding operation
- performing the moulding operation
- monitoring and controlling the moulding operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		J/601/3085
Qualification Framework		RQF
Title		Producing moulded products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing moulded products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant moulding procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • moulding equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant moulding procedure and quality specifications	
		1.4	Use the correct moulding tools, equipment, materials and work holding methods for the moulding operations being performed	
		1.5	Apply release agents to patterns/moulds when required	
		1.6	Perform moulding operations using one of the following methods: <ul style="list-style-type: none"> • hand moulding operations • manually operated machine moulding operations • fully automated machine moulding operations • combined moulding operations 	
		1.7	Perform the moulding operation according to instructions and safe operating procedures	
		1.8	Monitor and control the moulding operation and identify any faults, variations or problems that occur	

		1.9	<p>Make permitted adjustments to solve production faults, variations or problems related to two of the following:</p> <ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	
		1.10	<p>Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following:</p> <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.11	Minimise any waste during the moulding operation	
		1.12	Produce moulded products which comply with the specification and quality requirements	
		1.13	<p>Carry out checks of the moulded products to include all of the following:</p> <ul style="list-style-type: none"> • completeness of moulding operations • shape/profile of moulded product • quality of finish and appearance • freedom from damage or deformity • freedom from contamination 	
		1.14	<p>Work to achieve their production targets for both of the following:</p> <ul style="list-style-type: none"> • output • quality 	
		1.15	Deal appropriately with moulded components and complete any necessary documentation accurately and legibly	
2.	Know how produce moulded products	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the moulding operations	
		2.2	Explain the specific safe working practices, moulding procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the moulding operations and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies	
		2.5	Explain what personal protective equipment needs to be used during the moulding activities and where can it be obtained	
		2.6	Explain how to obtain the necessary job instructions, operating procedures and moulding specifications that are used, and how to interpret them	

	2.7	Explain what tools and equipment are used for the moulding operations undertaken and how to check that they are in a safe and usable condition	
	2.8	Explain how to apply release agents when required	
	2.9	Explain how to operate, monitor and control the moulding equipment to achieve the required specification	
	2.10	Explain the specific moulding operations to be performed	
	2.11	Explain why it is important to follow the specified moulding sequence and procedure at all times	
	2.12	Explain what methods can be used to minimise waste during moulding operations	
	2.13	Explain what faults, problems or variations can occur in the moulding operation	
	2.14	Explain how to identify faults, problems or variations in the moulding operation	
	2.15	Explain what allowable adjustments they can make to achieve specification in the moulding operation	
	2.16	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.17	Explain how to check the quality of the moulded components, against the required quality standards and what tools and equipment are used	
	2.18	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.19	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.20	Explain who are the appropriate people and what are their responsibilities within their working area	

A large, stylized version of the word 'eta' is centered on the page. The 'e' is outlined in a dark olive green, the 't' is outlined in black, and the 'a' is outlined in a light grey. The letters are connected and have a rounded, friendly appearance.

Level 2 Unit – Producing packaged products

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out packaging operations on finished products which may be for protective, decorative, marketing or transportation purposes. This will include wrapping, boxing, bagging, bottling etc.

This will involve packaging finished products according to defined operating procedures. The learner will be expected to monitor and control the packaging operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the packaged products meet the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the packaging activities undertaken, and to report any problems with the packaging activities that they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and packaging procedures. They will have an understanding of the packaging operation used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with the packaging tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on producing packaging products involves:

- working with minimum supervision
- using the correct tools, equipment and materials for the packaging operation
- performing the packaging operation
- monitoring and controlling the packaging operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation accurately and legibly
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		D/601/3089
Qualification Framework		RQF
Title		Producing packaged products
Unit Level		Level 2
Guided Learning Hours		60
Unit Credit Value		15
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Producing packaged products	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant packaging procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • packaging equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant packaging procedure and quality specifications	
		1.4	Use the correct packaging tools, equipment, materials for the packaging operations being performed	
		1.5	Perform packaging operations using one of the following methods: <ul style="list-style-type: none"> • hand packaging operations • manually operated machine packaging operations • fully automated machine packaging operations • combined packaging operations 	
		1.6	Perform the packaging operation according to instructions and safe operating procedures	
		1.7	Follow the correct sequence of events in the finishing operation	
		1.8	Monitor and control the packaging operation and identify any faults, variations or problems that occur	
		1.9	Make permitted adjustments to solve production faults, variations or problems to related to two of the following:	

			<ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	
		1.10	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.11	Minimise any waste during the packaging operation	
		1.12	Produce finished products which comply with the packaging specification and quality requirements	
		1.13	Carry out checks of the packaged products to include the following: <ul style="list-style-type: none"> • completeness of packaging operations and three other checks from the following: <ul style="list-style-type: none"> • quality of finish and appearance • freedom from damage • freedom from contamination • security of packaging • quantity • volume 	
		1.14	Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.15	Deal appropriately with packaged components and complete any necessary documentation accurately and legibly	
2.	Know how to Produce packaged products	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the packaging operations	
		2.2	Explain the specific safe working practices, packaging procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the packaging operations and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies	
		2.5	Explain what personal protective equipment needs to be used during the packaging activities and where can it be obtained	

	2.6	Explain how to obtain the necessary job instructions, operating procedures and packaging specifications that are used, and how to interpret them	
	2.7	Explain what tools and equipment are used for the packaging operations undertaken and how to check that they are in a safe and usable condition	
	2.8	Explain how to operate, monitor and control the packaging equipment to achieve the required specification	
	2.9	Explain the specific packaging operations to be performed	
	2.10	Explain why it is important to follow the specified packaging sequence and procedure at all times	
	2.11	Explain what methods can be used to minimise waste during packaging operations	
	2.12	Explain what faults, problems or variations can occur in the packaging operation	
	2.13	Explain how to identify faults, problems or variations in the packaging operation	
	2.14	Explain what allowable adjustments they can make to achieve the specification in the packaging operation	
	2.15	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve	
	2.16	Explain how to check the quality of the packaged products, against the required quality standards and what tools and equipment are used	
	2.17	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.18	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.19	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Making products using computer controlled equipment

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to produce products using computer controlled equipment. This could include using programmable logic controllers, monitoring the manufacturing operation, responding to error messages etc.

This will involve operating the equipment according to defined operating procedures. The learner will be expected to monitor and control the operation, minimising any waste, making adjustments within the limits of your permitted authority and ensuring that the completed output is to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

The learner's responsibilities will require them to comply with organisational policy and procedures for the computer controlled manufacturing activities undertaken, and to report any problems with the manufacturing activities they cannot personally resolve, or are outside their permitted authority to the appropriate people.

Unit introduction

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and procedures. They will have an understanding of the computer controlled equipment used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with computer controlled equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on making products using computer controlled equipment involves:

- working with minimum supervision
- using the correct tools, equipment and materials
- performing the manufacturing operation
- monitoring and controlling the manufacturing operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		R/601/3090
Qualification Framework		RQF
Title		Making products using computer controlled equipment
Unit Level		Level 2
Guided Learning Hours		67
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Making products using computer controlled equipment	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant manufacturing procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • computer controlled equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant manufacturing procedure and quality specifications	
		1.4	Ensure the manufacturing programme is at the correct start point before running the equipment	
		1.5	Follow the correct procedures for starting, running and stopping the computer programme	
		1.6	<ul style="list-style-type: none"> • Respond in an appropriate manner to any error/display screen messages received 	
		1.7	Monitor and control the computer controlled manufacturing operation and identify any faults, variations or problems that occur	
		1.8	Make permitted adjustments related to two of the following: <ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	

		1.9	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.10	Minimise any waste during the computer controlled manufacturing operation	
		1.11	Produce manufactured products which comply with the specification and quality requirements	
		1.12	Carry out checks of the manufactured products to include the following: <ul style="list-style-type: none"> • completeness of manufacturing operation and three other checks from the following: <ul style="list-style-type: none"> • dimensional accuracy • quality of finish • freedom from damage • quantity • volume • freedom from contamination 	
		1.13	Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.14	Deal appropriately with finished components and complete any necessary documentation accurately and legibly	
2.	Know how to make products using computer controlled equipment	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the computer controlled manufacturing operations	
		2.2	Explain the specific safe working practices, equipment procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the computer controlled operations and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies when using computer controlled equipment	
		2.5	Explain what personal protective equipment may be used during the operation and where can it be obtained	
		2.6	Explain how to obtain the necessary job instructions, operating procedures and manufacturing specifications that are used, and how to interpret them	
		2.7	Explain how to start up and check the computer equipment is at the correct start point in the operating program	
		2.8	Explain what to do if error messages are displayed	

	2.9	Explain how to restart the equipment after it has been closed down in an emergency situation	
	2.10	Explain what methods can be used to minimise waste during computer controlled manufacturing operations	
	2.11	Explain what faults, problems or variations can occur in the computer controlled manufacturing operation	
	2.12	Explain how to identify faults, problems or variations in the computer controlled manufacturing operation	
	2.13	Explain what allowable adjustments they can make to achieve specification in the computer controlled manufacturing operation	
	2.14	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
	2.15	Explain how to check the quality of the manufactured products, against the required quality standards	
	2.16	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.17	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.18	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Manufacturing products using combined manufacturing operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to produce products by several manufacturing processes using combined operations such as cutting/shaping, bending/forming, processing/packaging etc.

This will involve making products according to defined operating procedures. The learner will be expected to monitor and control the operation, minimising any waste, making adjustments within the limits of their permitted authority and ensuring that the completed products are to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the manufacturing activities undertaken, and to report any problems with the manufacturing activities they cannot personally resolve or are outside their permitted authority to the appropriate people.

The learner will be expected to work to instructions, with minimum supervision, taking personal responsibility for their actions and for the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work and will enable them to adopt an informed approach to applying the required work instructions and procedures. They will have an understanding of the combined operations used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, making allowable adjustments when required, to ensure that the required specification is achieved.

The learner will understand the safety precautions required when working with combined operations. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on manufacturing products using combined manufacturing operations involves:

- working with minimum supervision
- using the correct tools, equipment and materials
- performing the manufacturing operation
- monitoring and controlling the manufacturing operation
- making adjustments within the learner's permitted authority
- reporting unsolvable problems or problems that the learner is not responsible for, to the appropriate person
- completing any necessary documentation
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		H/601/3093
Qualification Framework		RQF
Title		Manufacturing products using combined manufacturing operations
Unit Level		Level 2
Guided Learning Hours		67
Unit Credit Value		18
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Manufacturing products using combined manufacturing operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant manufacturing procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety regulations • safe working practices • job instructions • equipment / tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant manufacturing procedure and quality specifications tools	
		1.4	Use the correct equipment for the manufacturing operations being performed	
		1.5	Perform the combined operations according to instructions and safe operating procedures	
		1.6	Monitor and control the combined operations and identify any faults, variations or problems that occur	
		1.7	Make permitted adjustments to solve production faults, variations or problems related to two of the following: <ul style="list-style-type: none"> • quality • accuracy • material utilisation • operational safety • manufacturing changes • productivity 	
		1.8	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following:	

			<ul style="list-style-type: none"> • supervisor • team leader • quality control 	
		1.9	Minimise any waste during the combined operation	
		1.10	Produce manufactured products which comply with the specification and quality requirements	
		1.11	Carry out checks of the manufactured products to include the following: <ul style="list-style-type: none"> • completeness of manufacturing operation and three other checks from the following: <ul style="list-style-type: none"> • dimensional accuracy • quality of finish • freedom from damage • quantity • volume • freedom from contamination 	
		1.12	Work to achieve their production targets for both of the following: <ul style="list-style-type: none"> • output • quality 	
		1.13	Deal appropriately with finished components and complete any necessary documentation accurately and legibly	
2.	Know how to manufacture products using combined manufacturing operations	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the combined operation	
		2.2	Explain the specific safe working practices, equipment procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the combined operations and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies when using combined operations	
		2.5	Explain what personal protective equipment may be used during the combined operations and where it can be obtained	
		2.6	Explain how to obtain the necessary job instructions, operating procedures and manufacturing specifications that are used, and how to interpret them	
		2.7	Explain what equipment is used for the combined operations and how do they check that it is in a safe and usable condition	
		2.8	Explain how to operate, monitor and control the combined operation to achieve the required specification	
		2.9	Explain the specific manufacturing operations to be performed	
		2.10	Explain what methods can be used to minimise waste during combined operations	

		2.11	Explain what faults, problems or variations can occur in the combined operations	
		2.12	Explain how to identify faults, problems or variations in the combined operation	
		2.13	Explain what allowable adjustments they can make to achieve specification in the combined operation	
		2.14	Explain why it is important to report faults, variations or problems that are outside their permitted authority and or they cannot solve immediately	
		2.15	Explain how to check the quality of the manufactured products, against the required quality standards	
		2.16	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
		2.17	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
		2.18	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Controlling manufacturing operations

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to control manufacturing operations according to defined operating procedures.

It involves gathering data that accurately reflects the condition of the manufacturing process, interpreting the data to identify any trends, variance or discrepancy, and restoring operating parameters to the process specifications promptly by making any adjustments allowable within the limits of the learner's responsibility. The learner will also be expected to seek authorisation from the appropriate person for any necessary adjustments that are outside the limits of their responsibility and ensure that production continues to comply with the specification.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the activities that they cannot personally resolve, or are outside their permitted authority, to the relevant people. They will be expected to work with a minimum of supervision, taking personal responsibility for their actions and the quality and accuracy of the work that they produce. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to applying the required procedures for controlling the manufacturing output. They will have a sound understanding of the manufacturing process used, and its application, and will know about the equipment, materials and consumables in adequate depth to provide a sound background for carrying out the activities, identifying and correcting faults and ensuring the production output is to the required specification. Meeting production targets will be an important issue and their production records must show consistent and satisfactory performance.

The learner will understand the safety precautions required when working with the manufacturing tools and equipment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on controlling manufacturing operations involves:

- gathering data which accurately reflects the condition of the manufacturing process
- interpreting the data to identify any trends, variance or discrepancy
- restoring operating parameters by making allowable adjustments
- making sure the production continues to meet specification
- correctly recording information about data collection, data interpretation and any adjustments made to the manufacturing operation
- reporting problems to the relevant person
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		M/601/3095
Qualification Framework		RQF
Title		Controlling manufacturing operations
Unit Level		Level 2
Guided Learning Hours		42
Unit Credit Value		19
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Controlling manufacturing operations	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • job instructions • equipment/tool operating instructions • company standards and procedures 	
		1.3	Obtain and follow the correct job instructions and any relevant production and quality specifications	
		1.4	Collect data in relation to one of the following production methods: <ul style="list-style-type: none"> • hand manufacturing operations • manually operated machine operations • fully automated machine operations • combined manufacturing operations 	
		1.5	Collect data which reflects the condition of the manufacturing process to include three of the following: <ul style="list-style-type: none"> • quality of finished product • dimensional accuracy • raw material use • consumable material use • machinery condition • equipment or tool condition • output/production targets 	

		1.6	Collect up to date, comprehensive and accurate operational data in line with production requirements	
		1.7	Record the data in the required format accurately and legibly	
		1.8	Use the data collected to make decisions about the condition of the manufacturing process	
		1.9	Deal with two of the following problems identified by the data collected: <ul style="list-style-type: none"> • trends • variation from specification • discrepancies 	
		1.10	Deal with problems within the manufacturing process by both of the following methods: <ul style="list-style-type: none"> • by taking action themselves • by reporting the problem to someone else 	
		1.11	Make any allowable adjustments to the operating parameters to ensure the production output meets the specification requirements	
		1.12	Make adjustments in relation to three of the following: <ul style="list-style-type: none"> • process effectiveness relating to operational sequence • process effectiveness relating to production time • process characteristics relating to quality • process characteristics relating to accuracy • material utilisation relating to production • materials utilisation relating to consumables • manufacturing programme changes • operational safety 	
		1.13	Seek authorisation from the appropriate person for any adjustments to operating parameters which are outside the limits of their responsibility	
		1.14	Check that production continues to comply with specification following any adjustments made	
2.	Know how to control manufacturing operations	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the manufacturing activities	
		2.2	Explain the specific safe working practices, data collection and adjustment procedures and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with carrying out the data collection and equipment adjustment procedures and how they can be minimised	
		2.4	Explain what actions need to be taken in case of emergencies	
		2.5	Explain what personal protective equipment needs to be used during the activities and where it can be obtained	
		2.6	Explain how to obtain the necessary job instructions, equipment operating and adjustment procedures and quality control specifications that are used, and how to interpret and understand them	

	2.7	Describe the type of production data which will provide information about the various aspects of the manufacturing operation	
	2.8	Explain how to collect the required data and how it is to be used and recorded	
	2.9	Explain how to check and interpret data relating to manufacturing operations	
	2.10	Explain why it is important to maintain the security of the information collected	
	2.11	Describe the potential problems with the data collected such as trends, variance or discrepancy, how these occur and how to correct them	
	2.12	Explain how to deal with problems which affect aspects of data collection, data interpretation and adjustments to manufacturing operations	
	2.13	Describe the adjustments that can be made to manufacturing operations, equipment and tools, materials and manufacturing programme and the procedures involved	
	2.14	Describe the various process operating parameters on the equipment used and how adjustments to these will affect the manufacturing output	
	2.15	Explain why it is important to follow the specified adjustment sequence and procedure at all times	
	2.16	Explain what documentation may need to be completed, and why it is important to complete it accurately and legibly	
	2.17	Explain how to report any problems they are not able to deal with themselves and why it is important to report faults, variations or problems immediately	
	2.18	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.19	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Contributing to improving effectiveness in
the workplace

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to contribute to improving effectiveness within the manufacturing environment in accordance with approved procedures and practices.

It involves working effectively in relation to the learners own and others' work, informing others of any delay which may affect them, reviewing their objectives and targets for their personal development to ensure that their skills and knowledge match those required and are employed effectively within the manufacturing environment. It also covers dealing with problems that affect the manufacturing process, contributing to and communicating any opportunities for improvements that could be made to working practices and procedures.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the personal development activities, problem solving or improvement activities that they cannot personally resolve, or are outside their permitted authority, to the relevant people. They will be expected to take personal responsibility for their own actions and the work that they carry out.

The learner's knowledge will be sufficient to provide a good understanding of the workplace organisational activities, and the area they are working in and provide an informed approach to working efficiently and effectively in a manufacturing environment. They will understand the need to work efficiently and effectively and its application, and will know about the areas they need to consider when agreeing their development objectives and targets, dealing with problems and contributing to workplace improvements, in adequate depth to provide a sound basis for carrying out the activities safely and correctly.

The learner will understand the specific safety precautions required when working in the manufacturing environment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on improving workplace effectiveness involves:

- working to meet workflow and quality targets
- reviewing personal development objectives and targets
- contributing to problem solving
- identifying opportunities for improving workplace effectiveness
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		A/601/3097
Qualification Framework		RQF
Title		Contributing to improving effectiveness in the workplace
Unit Level		Level 2
Guided Learning Hours		38
Unit Credit Value		8
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Contributing to improving effectiveness in the workplace	1.1	Work safely at all times, complying with health and safety and other relevant regulations and guidelines	
		1.2	Work in a way which is effective in relation to their own work and the work of colleagues within the organisation	
		1.3	Work effectively with colleagues to include three of the following: <ul style="list-style-type: none"> • colleagues in same work group • colleagues in other work groups • immediate supervision/line management • personnel in other departments • external contacts those for whom they have responsibility	
		1.4	Make sure that any actions that they take are within the limits of their own responsibility and authority	
		1.5	Contribute to reviewing their personal training and development as is appropriate to the job role	
		1.6	Review personal development objectives and targets to include one of the following: <ul style="list-style-type: none"> • dual or multi skilling • training on new equipment/technology • increased responsibility • understanding of company working practices, procedures, plans and policies • other specific requirements 	
		1.7	Deal promptly and effectively with problems within their responsibility	
		1.8	Deal with problems affecting the manufacturing process to include three of the following: <ul style="list-style-type: none"> • materials • tools and equipment 	

			<ul style="list-style-type: none"> • machinery or plant • drawings / specifications • job instructions • production quality • production output/timescales • people • safety • activities or procedures 	
		1.9	Report problems that they cannot resolve and or are not their responsibility	
		1.10	Identify any opportunities for improvements to working practices and procedures	
		1.11	Contribute to organisational procedures for identifying opportunities for improvement to one of the following: <ul style="list-style-type: none"> • working practices • working methods • quality • safety • tools and equipment • suppliers • internal communication • customer service • training and development • teamwork • other 	
		1.12	Share any suggestions for improving working practices and procedures with others using the appropriate method	
		1.13	Present ideas for potential improvements using two of the following methods: <ul style="list-style-type: none"> • orally • written • electronic • visually aided 	
2.	Know how to contribute to improving effectiveness in the workplace	2.1	Describe the relevant health and safety requirements and guidelines associated with their role within the workplace	
		2.2	Explain how to obtain and correctly use any equipment used to protect the health and safety of themselves and their colleagues	
		2.3	Explain what factors within the workplace affect effectiveness and why it is importance to work effectively	
		2.4	Explain the potential difficulties and delays which may affect their work and who else may also be affected by them	

	2.5	Explain how to communicate information, difficulties and ideas to colleagues in the appropriate way	
	2.6	Explain why it is important to contribute to their own personal development	
	2.7	Explain the benefits of continuous personal development	
	2.8	Explain what training opportunities are available in the workplace	
	2.9	Explain why it is important to review training and development objectives	
	2.10	Explain who to discuss training and development issues with	
	2.11	Explain the procedures for dealing with and reporting problems that affect the manufacturing process	
	2.12	Explain the types of problems that occur in the manufacturing process undertaken and how they can be avoided	
	2.13	Explain what techniques can be used to help solve problems	
	2.14	Explain who to refer to if they have problems that they cannot resolve	
	2.15	Explain why it is important to suggest ways in which they think improvements to working practices may be made	
	2.16	Explain how to identify and define improvement opportunities	
	2.17	Explain the procedure for making suggestions for improvements	
	2.18	Explain how to do the suggestions need to be made (such as verbally, in writing, formally or informally)	
	2.19	Explain the benefits to themselves and the organisation if improvements can be identified	
	2.20	Explain how to use the data and information available to them to communicate their ideas effectively to others	
	2.21	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.22	Explain who are the appropriate people and what are their responsibilities within their working area	



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Level 2 Unit – Analysing the results of inspection and
confirming quality of production

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to evaluate the results of the inspection and testing procedure, taking the appropriate action to confirm the quality of the products and materials according to defined operating procedures.

It involves confirming which products and materials comply with the specified quality control requirements after inspection and testing. It also involves identifying which products and materials do not conform to the specified quality control requirements and evaluating what action is required. Materials and products that do not conform to the required quality standards must be dealt with in the appropriate way according to specified quality control requirements. This also involves the reporting of results of the sampling procedure to the appropriate person.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the activities that they cannot personally resolve, or are outside their permitted authority, to the appropriate people. They will be expected to work with a minimum of supervision, taking personal responsibility for their actions and the quality and accuracy of the work that they carry out. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to applying the required quality standards. They will understand the principles of inspection and testing in order to confirm the quality of the production, in an adequate depth to provide a sound background for carrying out the activities, identifying any problems and ensuring that the production output is to the required quality specification.

The learner will understand the safety precautions required when working with the manufacturing equipment and when reporting on the required samples. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on analysing the results of inspection and confirming quality of production involves:

- evaluating and interpreting results of inspection and testing
- confirming the quality of samples, products and materials
- identifying and reporting any samples, products and materials which do not meet quality requirements
- correctly recording inspection and testing results
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		J/601/3099
Qualification Framework		RQF
Title		Analysing the results of inspection and confirming quality of production
Unit Level		Level 2
Guided Learning Hours		35
Unit Credit Value		14
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Analysing the results of inspection and confirming quality of production	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant inspection, testing procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • quality control job instructions • machinery/equipment safety procedures • company standards and procedures 	
		1.3	Report on samples obtained from one of the following manufacturing methods: <ul style="list-style-type: none"> • hand manufacturing operations • manually operated machine operations • computer controlled operations • fully automated machine operations • combined manufacturing operations 	
		1.4	Make sure they have all the required data to hand before starting to analyse them	
		1.5	Confirm quality requirements related to both of the following sampling procedures: <ul style="list-style-type: none"> • random • defined (e.g. first/final) 	
		1.6	Accurately interpret the data/results gained from two of the following inspection and testing procedures: <ul style="list-style-type: none"> • visual inspection • measurement • analysis testing • functional operation 	

		1.7	Accurately distinguish between products and materials which meet the quality requirements and those which do not	
		1.8	Take appropriate action with products and materials according to the results of the inspection and testing procedure	
		1.9	Take appropriate action following the outcome of the evaluation activities related to both of the following: <ul style="list-style-type: none"> • acceptable samples - within required quality • unacceptable samples - outside required quality 	
		1.10	Report any problems that they cannot solve, or are outside their permitted authority, to the appropriate person to include one of the following: <ul style="list-style-type: none"> • team leader • production supervisor • quality control supervisor 	
2.	Know how to analyse the results of inspection and confirming quality of production	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the inspection and analysis activities	
		2.2	Explain the specific safe working practices and environmental regulations that need to be observed	
		2.3	Explain the hazards associated with the analysis and testing procedures and how they can be minimised	
		2.4	Explain what personal protective equipment needs to be used during the activities and where can it be obtained	
		2.5	Explain how to obtain the necessary job instructions, analysis and evaluation documentation and quality control specifications that are used, and how to interpret them	
		2.6	Explain the correct methods of handling and storing the samples	
		2.7	Explain how to confirm samples, products and materials meet the quality requirements	
		2.8	Explain how to identify which samples, products and materials do not meet the quality requirements	
		2.9	Explain how to interpret the results of the inspection and testing procedure	
		2.10	Explain what action needs to be taken with samples, products and materials that do not meet the quality requirements	
		2.11	Explain the potential problems associated with stages of the inspection and testing process, how they occur and how they can be corrected	
		2.12	Explain how to report any problems they are not able to deal with themselves and why it is important to report faults, variations or problems immediately	
		2.13	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
		2.14	Explain who are the appropriate people and what are their responsibilities within their working area	



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Level 2 Unit – Carrying out inspection and testing activities

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to carry out inspection and testing activities according to defined operating procedures.

It involves gathering and preparing samples of materials and products for inspection and testing to ensure that the learner complies with the quality control requirements. This will involve checks and tests such as visual checks for defects and appearance, checks for dimensional accuracy and tests of product specification that may be carried out by themselves or sent to other departments for specific analysis.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the activities that they cannot personally resolve, or are outside their permitted authority, to the appropriate people. They will be expected to work with a minimum of supervision, taking personal responsibility for their actions and the quality and accuracy of the work that they carry out. They will also be expected to complete any necessary documentation accurately and legibly.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to applying the required quality sampling procedures. They will understand the principles of gathering samples in order to confirm the quality of the production in an adequate depth to provide a sound background for carrying out the activities.

The learner will understand the safety precautions required when working with the manufacturing equipment and when taking and testing the required samples. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on carrying out inspection and testing activities involves:

- gathering samples at the appropriate level of frequency
- preparing the samples for inspection and testing
- carrying out the inspection and testing activities
- reporting unsolvable problems, or problems that the learner is not responsible for, to the appropriate person
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		H/601/3112
Qualification Framework		RQF
Title		Carrying out inspection and testing activities
Unit Level		Level 2
Guided Learning Hours		53
Unit Credit Value		16
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Carrying out inspection and testing activities	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Follow the relevant sampling procedures and safety requirements to include all of the following: <ul style="list-style-type: none"> • health and safety and environmental regulations • safe working practices • quality control job instructions • machinery/equipment safety procedures • company standards and procedures 	
		1.3	Collect production samples in relation to one of the following manufacturing methods: <ul style="list-style-type: none"> • hand manufacturing operations • manually operated machine operations • computer controlled operations • fully automated machine operations combined manufacturing operations	
		1.4	Obtain and follow the correct job instructions and any relevant quality control specifications	
		1.5	Carry out the inspection and testing activities using the specified methods and equipment	
		1.6	Carry out sampling activities to include both of the following sampling procedures: <ul style="list-style-type: none"> • random • defined (e.g. first/final) 	
		1.7	Work in line with all of the following aspects of the inspection specification: <ul style="list-style-type: none"> • use the correct method of sampling • obtain the required number of samples • obtain the correct size of samples • use the correct source of sample • take samples at the correct time/frequency 	

		1.8	Take samples of the production output at the required frequency and in line with the inspection specification and operating procedures	
		1.9	Handle and store the samples safely and correctly in keeping with the quality control procedures	
		1.10	Transfer any samples which need to be inspected and tested in other departments promptly and in the correct way	
		1.11	Prepare samples for inspection and testing in line with the defined procedures	
		1.12	Carry out checks of the samples to include two of the following as is appropriate to the process: <ul style="list-style-type: none"> • visual inspection • measurement • analysis testing • functional operation 	
		1.13	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • team leader • production supervisor • quality control supervisor 	
2.	Know how to carry out inspection and testing activities	2.1	Describe the relevant health and safety requirements of the work area in which they are carrying out the sampling and inspection/testing activities	
		2.2	Explain what specific safe working practices, sampling collection, testing procedures and environmental regulations need to be observed	
		2.3	Explain the hazards associated with carrying out the sample collection and inspection and testing procedures and how they can be minimised	
		2.4	Explain what personal protective equipment needs to be used during the sampling and inspection/testing activities and where can it be obtained	
		2.5	Explain how to obtain the necessary job instructions, sampling equipment, inspection and testing procedures and quality control specifications that are used, and how to interpret them	
		2.6	Explain how to carry out the sampling activities in line with the production and quality control procedures including first off, random, defined and final sampling procedures	
		2.7	Explain why it is important to follow the specified sampling sequence and inspection and testing procedure at all times	
		2.8	Describe what specific sampling and inspection and testing equipment is to be used, and the precautions to be taken when handling and using it	
		2.9	Explain what factors may make the equipment, or the samples obtained unsuitable for the testing or inspection activities	
		2.10	Describe the correct methods of preparing, handling and storing the samples	

	2.11	Explain how to carry out an inspection or testing of sample materials and products in line with operating and quality control procedures	
	2.12	Describe the potential problems associated with stages of the inspection and testing process, how they occur and how they can be corrected	
	2.13	Explain how to deal with problems which affect aspects of sample collection, inspection and testing activities and the interpretation of the results	
	2.14	Explain how to report any problems they are not able to deal with themselves and why it is important to report faults, variations or problems immediately	
	2.15	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
	2.16	Explain who are the appropriate people and what are their responsibilities within their working area	



Level 2 Unit – Recording and reporting inspection and test results

Unit aim

This unit covers the skills and knowledge needed to prove the competences required to record and report on the results of inspection and testing activities according to defined operating procedures.

It involves completing required quality control documentation accurately and in full and in making reports to the appropriate people in line with organisational procedures. This will involve completing checklist and written documentation and in making verbal and written reports on the results of inspection and test activities.

Unit introduction

The learner's responsibilities will require them to comply with organisational policy and procedures for the activities undertaken, and to report any problems with the activities that they cannot personally resolve, or are outside their permitted authority, to the appropriate people. They will be expected to work with a minimum of supervision, taking personal responsibility for their actions and the quality and accuracy of the work that they carry out.

The learner's knowledge will be sufficient to provide a sound basis for their work, and to adopt an informed approach to recording and reporting the information accurately and legibly. They will understand the principles of inspection and testing and the importance of accurate, clear and complete records in order to provide a sound background for carrying out the activities.

The learner will understand the safety precautions required when working within the manufacturing environment. They will be required to demonstrate safe working practices throughout and will understand the responsibility they owe to themselves and others in the workplace.

This unit on recording and reporting the results of inspection and testing involves:

- maintaining accurate, clear and complete records
- providing reports on inspection and test results in a timely fashion
- reporting unsolvable problems, or problems that they are not responsible for, to the appropriate person
- working in ways which maintain the safety of the learner and others

Assessment

To achieve this unit, the learner needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria determine the standard required to achieve the unit through a variety of assessment methods appropriate to the delivery environment.

Unit Reference Number		K/601/3113
Qualification Framework		RQF
Title		Recording and reporting inspection and test results
Unit Level		Level 2
Guided Learning Hours		39
Unit Credit Value		8
Unit Grading Structure		Pass / Fail

Learning Outcome		Assessment Criteria - The learner can		Criteria expansion
1.	Recording and reporting inspection and test results	1.1	Work safely at all times, complying with health and safety, environmental and other relevant regulations and guidelines	
		1.2	Obtain and use the correct quality control documentation for the manufacturing method and product	
		1.3	Use the correct documentation for one of the following: <ul style="list-style-type: none"> • hand manufacturing operations • manually operated machine operations • computer controlled operations • fully automated machine operations combined manufacturing operations	
		1.4	Record details in relation to two of the following as appropriate to the process: <ul style="list-style-type: none"> • visual inspection • measurement • analysis testing • functional operation 	
		1.5	Record the results of the inspection activities in the appropriate format to include two of the following: <ul style="list-style-type: none"> • check box/tick list • written • electronic 	
		1.6	Complete records related to both of the following sampling procedures: <ul style="list-style-type: none"> • random • defined (e.g. first/final) 	
		1.7	Record inspection and test results accurately and legibly	

		1.8	Record all required details of the inspection and test activities and results	
		1.9	Pass completed records on to the correct person/location	
		1.10	Provide required reports on time and through the correct channels of communication to include two of the following: <ul style="list-style-type: none"> • oral • written • electronic 	
		1.11	Report any problems that they cannot solve or are outside their permitted authority to the appropriate person to include one of the following: <ul style="list-style-type: none"> • team leader • production supervisor • quality control supervisor 	
2.	Know how to record and report inspection and test results	2.1	Describe the relevant health and safety requirements of the work area in which they are recording the results of inspection/testing activities	
		2.2	Explain what specific safe working practices, sampling collection, testing procedures and environmental regulations need to be observed	
		2.3	Explain how to obtain the necessary quality control documentation that is used	
		2.4	Explain how to complete quality control documentation	
		2.5	Explain why it is important to complete documentation accurately and legibly	
		2.6	Describe when quality control documentation should be completed	
		2.7	Explain what information needs to be recorded in relation to the manufacturing method and sample type	
		2.8	Explain what use is made of quality control documentation by the organisation	
		2.9	Explain where/to whom they should pass on completed records	
		2.10	Describe the potential problems associated with completing records and passing on reports, how they can be avoided and what can be done if they arise	
		2.11	Explain how to report any problems they are not able to deal with themselves and why it is important to report problems immediately	
		2.12	Explain what their responsibilities are with regard to the reporting lines and procedures in their working area	
		2.13	Explain who are the appropriate people to whom records should be passed and problems reported to	