



Qualification Specification

ProQual Level 2 Diploma in Supporting the Installation of Pipework Components in Engineering Construction

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This qualification is part of ProQual's broad offer of qualifications in the Construction Sector.

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Introduction

The ProQual Level 2 Diploma in Supporting the Installation of Pipework Components in Engineering Construction provides a nationally recognised qualification for those currently working in, or who want to work in the construction sector.

The aims of this qualification are:

- Competency in the skills and knowledge required for supporting the installation of pipework components in a safe and compliant manner.
- To support career progression or further learning within the engineering construction sector.

The awarding body for this qualification is ProQual AB. This qualification has been approved for delivery in England. The regulatory body for this qualification is Ofqual, and this qualification has been accredited onto the Regulated Qualification Framework (RQF) and has been published in Ofqual's Register of Qualifications.

Qualification Profile

Qualification Title:	ProQual Level 2 Diploma in Supporting the Installation of Pipework Components in Engineering Construction
Qualification Number:	610/7450/0
Level:	2
Total Qualification Time (TQT):	Minimum 658 Hours
Guided Learning Hours (GLH):	Minimum 545 Hours
Assessment:	Pass/Fail
	Internally assessed and verified by centre staff
	Externally quality assured by ProQual Verifiers
Qualification Start Date:	12/05/2026
Qualification Review Date:	12/05/2029

Learner Profile

There are no formal academic entry requirements for this qualification. Centres should carry out their own assessment to establish candidate's existing knowledge and skills in order to develop the assessment plan. However, it is recommended that candidates should have attained GCSE grade G/1 or above or the equivalent functional skill in English and Maths due to the complexity of the subjects.

Candidates must be employed in a role that provides them with the opportunity to carry out supporting the installation of pipework components. Further information is available in the additional assessment information attached to each unit.

Candidates must be aged at least 16 years old on the day that they are registered for this qualification. Centres are reminded that no assessment activity may take place until a candidate has been registered.

Qualification Structure

This qualification consists of **8 mandatory units plus 3 optional units**. Candidates must complete all mandatory units to complete this qualification. **Optional units** may be selected individually or in combination according to the candidates' individual needs and role, in line with the learner profile.

Unit Number	Unit Title	Level	TQT	GLH
Mandatory Units – Candidates must complete all units in this group.				
H/652/1637	Work Effectively, Ethically and Sustainably in Engineering Construction	2	20	15
J/652/1638	Work Safely in Engineering Construction	2	40	30
K/652/1639	Identify and Deal with Hazards and Risks in Engineering Construction	3	50	40
R/652/1640	Interpret Documentation and Follow Procedures Including Preparing and Reinstating the Work Area	2	140	120
T/652/1641	Mark Out the Required Specification	2	67	50
Y/652/1642	Shape Pipework Components in Construction Using Hand Tools	2	87	70
A/652/1643	Support Pipework Component Assembly in Construction	2	157	140
D/652/1644	Support Pipework Component Positioning and Installation in Construction	2	97	80

Unit Number	Unit Title	Level	TQT	GLH
Optional Units – Candidates may select individually or in combination this group.				
F/652/1645	Support the Dismantling Pipework and Components	2	97	80
H/652/1646	Support Welding Operations in Engineering Construction	2	117	100
J/652/1647	Support the Installation of Mechanical Fire Protection Systems	2	55	40

Centre Requirements

Centres must be approved to deliver this qualification. If your centre is not approved to deliver this qualification, please complete and submit the **ProQual Additional Qualification Approval Form**.

Materials produced by centres to support candidates should:

- Enable them to track their achievements as they progress through the learning outcomes and assessment criteria.
- Provide information on where ProQual's policies and procedures can be viewed.
- Provide a means of enabling Internal and External Quality Assurance staff to authenticate evidence.

Centres must have the appropriate equipment to enable candidates to carry out the practical requirements of this qualification.

Certification

Candidates who achieve the requirements for this qualification will be awarded:

- A certificate listing all units achieved, and
- A certificate giving the full qualification title:

ProQual Level 2 Diploma in Supporting the Installation of Pipework Components in Engineering Construction

Claiming certificates

Centres may claim certificates for candidates who have been registered with ProQual and who have successfully achieved the qualification. All certificates will be issued to the centre for successful candidates.

Unit certificates

If a candidate does not achieve all of the units required for a qualification, the centre may claim a unit certificate for the candidate which will list all of the units achieved.

Replacement certificates

If a replacement certificate is required a request must be made to ProQual in writing. Replacement certificates are labelled as such and are only provided when the claim has been authenticated. Refer to the Fee Schedule for details of charges for replacement.

Assessment Requirements

Each candidate is required to produce a portfolio of evidence which demonstrates their achievement of all learning outcomes and assessment criteria for each unit.

Evidence can include:

- Observation report by assessor.
- Assignments/projects/reports.
- Professional discussion.
- Witness testimony.
- Candidate product.
- Worksheets.
- Record of oral and written questioning.
- Recognition of Prior Learning.

Candidates must demonstrate the level of competence described in the units. Assessment is the process of measuring a candidate's skill, knowledge and understanding against the standards set in the qualification.

Centre staff assessing this qualification must be **occupationally competent** and qualified to make assessment decisions. Assessors who are suitably qualified may hold a qualification such as, but not limited to:

- ProQual Level 3 Certificate in Teaching, Training and Assessment.
- ProQual Level 3 Award in Education and Training.
- ProQual Level 3 Award in Assessing Competence in the Work Environment.
(Suitable for assessment taking place in a working environment only.)
- ProQual Level 3 Award in Assessing Vocational Achievement.
(Suitable for assessment taking place in a simulated training environment only.)

Candidate portfolios must be internally verified by centre staff who are **occupationally knowledgeable** and qualified to make quality assurance decisions. Internal verifiers who are suitably qualified may hold a qualification such as:

- ProQual Level 4 Award in the Internal QA of Assessment Processes and Practice.
- ProQual Level 4 Certificate in Leading the Internal QA of Assessment Processes and Practice.

Occupationally competent means capable of carrying out the full requirements contained within a unit. **Occupationally knowledgeable** means possessing relevant knowledge and understanding.

Enquiries, Appeals and Adjustments

Adjustments to standard assessment arrangements are made on the individual needs of candidates. ProQual's Reasonable Adjustments Policy and Special Consideration Policy sets out the steps to follow when implementing reasonable adjustments and special considerations and the service that ProQual provides for some of these arrangements.

Centres should contact ProQual for further information or queries about the contents of the policy.

All enquiries relating to assessment or other decisions should be dealt with by centres, with reference to ProQual's Enquiries and Appeals Procedures.

Units – Learning Outcomes and Assessment Criteria

Title:	Work Effectively, Ethically and Sustainably in Engineering Construction			Level:	2
Unit Number:	H/652/1637	TQT:	20	GLH:	15
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand maintaining working relationships.	1.1	Describe why it is important to create and maintain working relationships.		
2	Understand problems affecting relationships.	2.1	Describe different problems that can affect relationships, and the actions that can be taken to deal with specific difficulties.		
3	Understand reporting lines, communication and quality management.	3.1	Explain the responsibilities of an operative and those of other individuals within a typical work environment.		
		3.2	Describe the importance of reporting lines, procedures, systems and documentation and the consequences if they are not followed.		
		3.3	Explain the limits of responsibility for yourself, other operatives and supervisors.		
		3.4	Explain what quality management procedures are and why it is important to follow them.		
		3.5	Describe routine problems that can occur and why it is important to deal with them promptly or report those that cannot be solved.		
4	Understand Environmental Sustainability and Ethics.	4.1	Explain why ethical behaviour and environmental sustainability are important in a typical workplace.		
		4.2	Explain what working ethically means including treating all people fairly and with respect as well as showing honesty, integrity, accuracy and professionalism.		

4	<i>Continued</i>	4.3	Describe what a code of conduct is and the relevant professional codes of conduct for the role.
		4.4	Explain how the role has an impact on the environment and how you can reduce this impact.
5	Establish and maintain productive working relationships.	5.1	Develop and maintain working relationships with a range of people, including supervisors, colleagues, clients, and other tradespeople.
		5.2	Deal with disagreements within the limits of your responsibility in a professional and constructive manner and so that working relationships are maintained.
6	Develop effective use of reporting lines, communication methods and quality management procedures in the workplace.	6.1	Use appropriate types of communication (formal/informal, written, verbal) to keeps others informed about important information that may affect them.
		6.2	Use appropriate types of communication (formal/informal, written, verbal) to keeps others informed about important information that may affect them.
		6.3	Respond positively and in a timely way when others ask for help or information, including checking and clarifying what is needed.
7	Work ethically and sustainably in the workplace.	7.1	Treat everyone fairly and with respect.
		7.2	Carry out practical tasks accurately and carefully, following required procedures.
		7.3	Deal effectively with resources taking environmental considerations into account.

Additional Assessment Information

Learning Outcomes 1-4 are **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcomes 5-7 are **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not**, in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence.

It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Work Safely in Engineering Construction			Level:	2
Unit Number:	J/652/1638	TQT:	40	GLH:	30
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand health and safety legislation, regulations and safe working practices and procedures.	1.1	Explain the requirements of health and safety legislation relevant to the role.		
		1.2	Explain the purpose and nature of risk assessments, method statements, and permit to work systems, and the relevance of local procedures and guidance notes.		
		1.3	Explain the consequences for employers and employees of not fulfilling their legal health and safety responsibilities.		
		1.4	Explain the importance of personal behaviour in maintain workplace standards.		
2	Understand personal site safety responsibilities.	2.1	Describe how to recognise health safety training needs, the procedure for requesting training and who to ask for help in understanding the work instructions.		
		2.2	Describe where and how to get information relating to the safe use of equipment and how to ensure the equipment is used safely.		
		2.3	Describe how to recognise when personal protective equipment should be used and how to select and use the correct equipment for the work to be undertaken.		
		2.4	Describe different types of injuries including slow developing and vibration injuries and explain how they can be prevented.		
		2.5	Describe the checks which are needed to make sure that portable electrical appliances are safe to use.		

2	<i>Continued</i>	2.6	Describe what a safe system for electrical isolation should include and why low voltage is generally safer in relation to health and safety.
		2.7	Describe the risks from overhead cables and how to control them.
		2.8	Describe what must be done when carrying hazardous substances in vehicles.
		2.9	Describe where asbestos is likely to be found, what should be done if it is thought to have been found and how it is a risk to health.
3	Understand site safety responsibilities of others.	3.1	Explain who is responsible for ensuring that equipment is checked and safe to use.
		3.2	Describe who is responsible and who must assess the health and safety of people working on a client's site.
		3.3	Describe the legal rights and responsibilities of the appointed safety representatives and the powers of the regulatory inspectors.
4	Understand first aid procedures.	4.1	Describe the first aid procedures that typically apply in the workplace including: <ul style="list-style-type: none"> • Where information about them can be found. • Where to find competence assistance. • Where local first aid facilities are.
5	Understand evacuation and emergency procedures.	5.1	Explain procedures for shutdown and evacuation and state where procedures can be obtained including the different types of alarm.
		5.2	Explain how to call for expert help in an emergency following the relevant procedures.
		5.3	Describe how to act safely in an excavation.
6	Understand reporting lines and documentation.	6.1	The importance of reporting lines, systems and documents and the consequences of not following them.

7	Apply health and safety and environmental procedures in the workplace.	7.1	Demonstrate how to work safely at all times complying with statutory health, safety and environmental legislation, permit to work systems and method statements.
		7.2	Select the correct personal protective equipment and use it correctly for the work location and work to be undertaken.
		7.3	Deal with dangers that can be contained correctly using appropriate equipment and following procedures.
		7.4	Refer safety matters to the appropriate persons.

Additional Assessment Information

Learning Outcomes 1-6 are **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 7 is **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

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It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Identify and Deal with Hazards and Risks in Engineering Construction			Level:	3
Unit Number:	K/652/1639	TQT:	50	GLH:	40
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand hazard spotting and safety assessment methods and techniques.	1.1	What is a hazard and what are the common hazards associated with processes, tools, equipment and materials.		
		1.2	State where information on hazard spotting and safety assessment methods and techniques can be found.		
		1.3	Explain the consequences for employers and employees of not fulfilling their legal health and safety responsibilities.		
		1.4	State what the individuals' responsibilities are in terms of dealing with and notifying others of hazards.		
2	Understand the effects of hazards on persons, property and the environment.	2.1	Describe the effects of hazards on persons, property and the environment.		
3	Understand actions to manage and minimise risk from hazards.	3.1	Explain who to call for appropriate help using warning systems as appropriate in relation to hazards.		
		3.2	Describe the types of actions that are required to deal with and minimise the risks from different types of hazards.		
		3.3	Explain what risk is in relation to health and safety, the importance of managing risk, and the consequences of poor risk management.		
4	Recognise processes, tools, equipment and materials that may cause harm in the workplace.	4.1	Safely check for potential hazards in accordance with agreed and approved procedures.		

4	<i>Continued</i>	4.2	Identify potential hazardous processes, tools, equipment and materials which exist in the work location and work to be undertaken.
		4.3	Minimise potential hazards using the procedures specified in the risk control strategy.
		4.4	Call for expert help using warning systems as appropriate.
		4.5	Report risks in accordance with the overall risk control strategy.

Additional Assessment Information

Learning Outcomes 1-3 are **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 4 is **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.

An observation report and witness testimony are differentiated as follows:

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- A **witness statement** is completed by a suitably qualified or experienced expert who observes the candidate carrying out practical work. The witness statement will contain **only** a commentary of what has been observed. An assessor must then use the witness statement, alongside any additional evidence to make assessment decisions.
- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

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It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Interpret Documentation and Follow Procedures Including Preparing and Reinstating the Work Area			Level:	2
Unit Number:	R/652/1640	TQT:	140	GLH:	120
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand the documentation required for supporting the installation of pipework components in construction.	1.1	Explain the principles, the uses and conventions of: <ul style="list-style-type: none"> • Method statements. • Risk assessments. • Technical drawings. • Related specifications. • Manufacturers specifications. • Product worksheets. • BS/EN standards. 		
		1.2	Identify and describe the information detailed in the diagrams in engineering drawings and related specifications and how it relates to the physical component(s) and activities.		
		1.3	Describe where to find information that may be needed in order to support the installation of pipework components.		
2	Understand the reporting procedures and documentation requirements.	2.1	Describe the procedures used to report on activities and the related reporting documentation including who to report to, what to report and when to report.		
3	Understand how to prepare and reinstate the work area.	3.1	Identify and describe the hazards and consequences of incorrectly preparing or reinstating work areas, material and equipment.		

3	<i>Continued</i>	3.2	Explain the procedures for the connection and operation of applicable services and equipment.
		3.3	Explain the types of equipment that is needed and the care and control procedures.
		3.4	Describe how to check that materials are of the correct specification, quantity and quality.
		3.5	Describe methods to handle material correctly and the correct preparation methods.
		3.6	Explain storage methods and procedures.
		3.7	Explain what typical waste minimisation and disposal procedures are.
		4	Use approved documentation to support safe pipework installation activities.
4.2	Interpret and follow specifications, engineering drawings and work instructions, including but not limited to method statements, risk assessments and technical drawings.		
4.3	Complete relevant documentation in line with procedures correctly and accurately.		
5	Carry out and complete workplace reporting and documentation in accordance with procedures.	5.1	Follow procedures and report on the completion of activities in accordance with procedures.
		5.2	Report any instance where the activities cannot be fully met or where there are identified defects or variations from the specification which are outside the planned schedule.
		5.3	Check that all required reporting documentation is completed correctly upon completion of the activity.
6	Prepare and re-instate the work area correctly and safely.	6.1	Follow safety procedures, risk assessments and methods of work when preparing and re-instating the work area, materials, tools and equipment.
		6.2	Obtain relevant specifications, check and prepare the appropriate tools, materials and equipment and check they are in a safe and useable condition.
		6.3	Ensure that all necessary service supplies are connected correctly and ready to use.

6	<i>Continued</i>	6.4	Ensure that any stored energy or substances are released safely and correctly if appropriate.
		6.5	Ensure that all isolations and disconnections to the equipment are completed in line with approved procedures.
		6.6	Ensure safe access to the work area is provided and maintained.
		6.7	Confirm the workplace is in the expected condition.
		6.8	Ensure suitable arrangements are in a place to protect other workers from activities that may disrupt normal work.
		6.9	Assist with ensuring the necessary connections to are established and complete.
		6.10	Correctly dispose of waste materials and store re-useable materials and equipment correctly, minimising waste wherever possible.

Additional Assessment Information

Learning Outcomes 1-3 are **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcomes 4-6 are **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
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- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not**, in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence.

It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Mark Out the Required Specification		Level:	2
Unit Number:	T/652/1641	TQT:	67	GLH: 50
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>		
1	Understand how to mark out to specification.	1.1	Explain how to identify the correct version of drawings and specifications.	
		1.2	Explain surface preparation requirements and methods including why this is important to be done correctly.	
		1.3	Describe the tools, methods and techniques used in marking out.	
		1.4	Explain geometric construction methods used when supporting pipework installation.	
2	Mark out materials accurately using given specifications.	2.1	Check and obtain the correct version of drawings and specifications.	
		2.2	Prepare correct datum and surfaces ready for marking out.	
		2.3	Mark out using approved methods, tools and equipment under supervision.	
		2.4	Check the marking complies with the specification.	
		2.5	Seek confirmation from an appropriate person that the marking out meets the required specification.	

Learning Outcome 1 is **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 2 is **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

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- Expert witness testimony.
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It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:		Shape Pipework Components in Construction Using Hand Tools		Level:	2
Unit Number:	Y/652/1642	TQT:	87	GLH:	70
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand the tools, methods and techniques used to shape pipework components using hand tools.	1.1	Describe the tools, methods and techniques necessary to carry out the shaping of pipework components.		
		1.2	Describe checking methods and techniques.		
		1.3	Describe how to identify defects in pipework components and the types of defects that may occur.		
2	Shape pipework components by material removal using hand tools.	2.1	Confirm requirements for the pipework components to be produced.		
		2.2	Shape the materials using the appropriate shaping methods and techniques.		
		2.3	Check that the requirements for shaping have been achieved.		
		2.4	Seek confirmation that the component is completed to the required specification.		

Additional Assessment Information

Learning Outcome 1 is **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 2 is **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

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- Expert witness testimony.
- Candidate reflection on own practical work.

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It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Support Pipework Component Assembly in Construction			Level:	2
Unit Number:	A/652/1643	TQT:	157	GLH:	140
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand the requirements for assembling pipework components.	1.1	Explain the use of engineering drawings and specifications.		
		1.2	Explain methods and techniques used in component assembly.		
		1.3	Explain handling techniques and procedures used in component assembly.		
		1.4	Describe temporary methods of support that can be used in component assembly.		
		1.5	Explain checking methods and techniques in component assembly.		
		1.6	Explain how to identify defects in products and equipment.		
2	Support the assembly and securing of pipework components in line with drawings, instructions and specifications.	2.1	Follow relevant instructions, assembly drawings and specifications.		
		2.2	Assist with assembling components in the correct positions using approved methods and techniques.		
		2.3	Secure components under supervision using specified connectors and securing devices, using temporary supports where required.		
		2.4	Check that assembly requirements have been met against instructions and specifications.		
		2.5	Seek confirmation from an appropriate person that the assembly meets the required specification.		

Additional Assessment Information

Learning Outcome 1 is **knowledge based**. This means that evidence is expected to take the form of candidate's written work and/or records of appropriate professional discussions.

Learning Outcome 2 is **competency based**. This means that the candidate is expected to perform the tasks, and demonstrate the level of competence, outlined in the assessment criteria. It is expected that evidence will be a combination following:

- Photographic and/or video evidence of the candidate's practical work.
- Assessor's observation report.
- Expert witness testimony.
- Candidate reflection on own practical work.

An observation report and witness testimony are differentiated as follows:

- An **assessor's report** is completed by a qualified assessor who observes the candidate carrying out practical work. The assessor will make assessment decisions as they observe and record these in the report, alongside a commentary of what they observe.
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- In all cases, an assessor's report is preferred as evidence over a witness statement; as it is always better for an assessor to observe a candidate live.

Assessors may wish use to use a checklist or evidence matrix to organise and track the assessment outcomes that have been achieved, but these **do not**, in themselves, constitute evidence of achievement.

An assessor's report or witness statement alone is unlikely to be sufficient evidence of achievement. Reports and statements should always be accompanied by photographic and/or video evidence.

It is expected that competence of each assessment criteria will be observed **at least twice** before it is awarded.

Title:	Support Pipework Component Positioning and Installation in Construction		Level:	2
Unit Number:	D/652/1644	TQT:	97	GLH: 80
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>		
1	Understand the requirements for positioning and installing pipework.	1.1	Explain the techniques and procedures used for installation.	
		1.2	Explain the tools used for positioning and installing pipework components.	
		1.3	Explain foreign material exclusion techniques and their importance in installation work.	
		1.4	Explain defects that may be identified during pipework component assembly.	
2	Support the correct positioning and installation of pipework components.	2.1	Work in accordance with the relevant instructions, assembly drawings and specifications.	
		2.2	Ensure all relevant components are free from damage before use.	
		2.3	Apply appropriate methods and techniques to assist with the positioning and installation of pipework components.	
		2.4	Apply foreign material exclusion procedures as required.	
		2.5	Ensure the installation is protected from the environment and potential damage.	
		2.6	Check that positioning and installation requirements have been met against instructions and specifications.	
		2.7	Seek confirmation from an appropriate person that the positioning and installation meets the required specification.	

Additional Assessment Information

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Title:		Support the Dismantling Pipework and Components		Level:	2	
Unit Number:		F/652/1645	TQT:	97	GLH:	80
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>				
1	Understand the requirements for dismantling pipework and components.	1.1	Explain how components are removed, including the methods and procedures used.			
		1.2	Explain how to safely release stored energy or substances.			
		1.3	Explain the methods and techniques for installing support systems for dismantling.			
		1.4	Explain the tool and techniques required for correct dismantling using engineering drawings and maintenance manuals.			
		1.5	Explain the correct process and procedures for the safe disposal of waste and redundant or obsolete equipment.			
2	Support the dismantling of plant and equipment in line with approved procedures.	2.1	Carry out isolations and disconnections under supervision in line with approved procedures.			
		2.2	Ensure that stored energy or substances are released safely and correctly in line with approved procedures.			
		2.3	Identify and where necessary mark components to support re-assembly.			
		2.4	Assist in the removal of identified components using approved tools, methods and techniques.			
		2.5	Correctly store or dispose of components in accordance with approved procedures.			

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Title:	Support Welding Operations in Engineering Construction			Level:	2
Unit Number:	H/652/1646	TQT:	117	GLH:	100
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>			
1	Understand welding processes, equipment and preparation.	1.1	Identify and describe the common welding processes and equipment required.		
		1.2	Describe the basic requirements for pre-weld and post-weld treatments when supporting welding operations.		
		1.3	Explain how to identify the range of gases required for specific processes.		
		1.4	Explain how to apply the related control procedures for the consumables required for specific processes, to include: <ul style="list-style-type: none"> • How to identify them. • What the different types are. • How to store, handle and dispose of them. • Cable management and inspection. 		
		1.5	Describe equipment handling and setting up methods for specific processes.		
2	Provide effective support to welding operations in accordance with instructions and workplace procedures.	2.1	Follow the relevant job instructions together with the relevant welding procedures.		
		2.2	Obtain the correct welding equipment, ancillary equipment and consumables and ensure they are in good condition.		
		2.3	Safely handle, transport and connect equipment and ancillaries in the appropriate location.		
		2.4	Make simple welded joints to specification using an appropriate welding technique, in accordance with instructions and under supervision.		

2	<i>Continued</i>	2.4	Complete shutdown activities making the sure the equipment is in a safe condition and ready for disconnection.
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Additional Assessment Information

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Title:	Support the Installation of mechanical Fire Protection Systems		Level:	2
Unit Number:	J/652/1647	TQT:	55	GLH: 40
Learning Outcomes <i>The learner will be able to:</i>		Assessment Criteria <i>The learner can:</i>		
1	Understand safety, testing, installation activities for mechanical fire protection systems.	1.1	Explain how to check the safe operation of tools and system components and why this is important.	
		1.2	Explain how to check that test apparatus is working and calibrated and why this is important.	
		1.3	Identify and describe typical installation activities and timescales.	
		1.4	Identify and describe typical problems that can occur during installations and how to deal with them within your limits of responsibility.	
		1.5	Explain the different types of devices and methods for fixing and mounting system components and how to select and use them.	
		1.6	Describe safe handling procedures during installation.	
		1.7	Explain why you may need to identify if there is an electrical system present and how to isolate it safely.	
		1.8	Identify the relationships between different types of fire and the appropriate extinguishing media.	

2	Assist with the safe positioning and installation of system components in accordance with manufacturer guidance, legislation, and health and safety requirements.	2.1	Check and confirm that the required tools and system components are available, in good working order and comply with health and safety requirements.
		2.2	Select fixing and mounting devices and methods that are appropriate to the building structure and material.
		2.3	Resolve any potential problems during the preparation for the installation within the limits of your responsibility.
		2.4	Report any problems you cannot resolve in line with procedures and guidelines to an appropriate person.
		2.5	Assist with positioning and installing specified system components in compliance with manufacturer guidance, statutory regulations, method statements, and health and safety codes of practice.
		2.6	Use tools, fixing and mounting devices and methods that are appropriate to the installation activity.
		2.7	Assist with making good any damage to building structures or surfaces in line with given specifications and instructions.
		2.8	Report any damage you cannot repair to the appropriate person.
		2.9	Remove tools and materials from site after use and report any that are unserviceable to the correct person.

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Appendix One – Command Verb Definitions

The table below explains what is expected from each **command verb** used in an assessment objective. Not all verbs are used in this specification

Apply	Use existing knowledge or skills in a new or different context.
Analyse	Break a larger subject into smaller parts, examine them in detail and show how these parts are related to each other. This may be supported by reference to current research or theories.
Classify	Organise information according to specific criteria.
Compare	Examine subjects in detail, giving the similarities and differences.
Critically Compare	As with compare, but extended to include pros and cons of the subject. There may or may not be a conclusion or recommendation as appropriate.
Describe	Provide detailed, factual information about a subject.
Discuss	Give a detailed account of a subject, including a range of contrasting views and opinions.
Explain	As with describe but extended to include causation and reasoning.
Identify	Select or ascertain appropriate information and details from a broader range of information or data.
Interpret	Use information or data to clarify or explain something.
Produce	Make or create something.
State	Give short, factual information about something.
Specify	State a fact or requirement clearly and in precise detail.



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